

**CARGILL**  
**SALT DIVISION**

916 S. Riverside Ave.  
St. Clair, MI 48079-5335  
810/326-2700

**RECEIVED**

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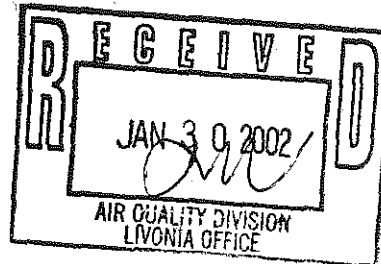
**AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5**

A 6240

*LJW*

January 28, 2002

Ms. Lillian Wooley  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006



TM - IN CEMS DATABASE 2/14/02

Re: Boiler 5 Quarterly Excess Emissions report (EER) for the 4<sup>th</sup> quarter 2001

Dear Ms. Wooley:

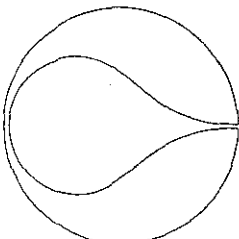
This EER is being submitted in accordance with the quarterly reporting requirements in accordance with 40 CFR 60.7(c) and (d). Attached is summary report utilizing MDEQ's reporting form based on the format required by 40 CFR 60.7(d).

During the 4<sup>th</sup> quarter, Boiler 5 operated within the opacity emission 99.58% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time.

The majority of the exceedences in the 4<sup>th</sup> quarter (55%) are due to two separate boiler upsets that have previously reported under rules 912 and 913. One incident was caused by the one-time switch over from temporary boilers and the other was due to an instrument failure (see details below). We had a few exceedences this quarter associated with boiler activities (i.e. soot blowing, ash pulling) due to the boiler passes accumulating some ash over an extended period of time. This problem will be addressed in early February when we will clean our boiler passes. We are still working on solving some of the problems downstream of the boiler. Many of these downstream affects have been reduced in the boiler house itself by the installation of the new gas boiler in late November. We will continue to focus on minimizing their effects at the source.

We feel the facility continues to make significant progress in reducing the number of opacity exceedences. If not for the two incidents noted above the facility would have operating within the opacity limits 99.8% of the time. I would also like to note that after the last temporary boiler (Boiler #9) was removed on December 3rd there was only three exceedences measured in the rest of December and the facility has not had any opacity exceedences in the 1<sup>st</sup> quarter of 2002 as of the date of this letter.

Cargill, St. Clair has identified eight causes for the (82) 6-min opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with corrective actions, and preventative measures. The summaries below also include the percentage of the total exceedences caused by the particular problem. Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached as Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.



Cause                      Corrective Action Taken or Preventative Measure Adopted

Resistance Temperature Detector (RTD) Failure (Control equipment problem) –  
(43 %)

Cargill had 36 opacity exceedences caused by a RTD transmitter failing. This transmitter is used for correcting the steam flow from boiler # 5 based on temperature. When this transmitter failed, it caused the steam flow from boiler # 5 to go above normal operating parameters. This caused the ID fan, FD fan, stoker feeders, and other boiler functions to go out of their normal operating parameters to match the false steam flow reading. Because of the RTD failure, the boiler was taken off line immediately for safety concerns. The smoldering coal that was still in the boiler when it was shut down caused the opacity exceedences. Reference Cargill's letter to Cyndi Mollenhour on Nov 9, 2001.

Took Rental Boiler # 9 offline-  
(12 %)

On December 3, 2001 Cargill took its last rental boiler offline. At this time we had Boiler # 10 installed and operational. We expected to run smoothly with our 600 psig boiler (# 5) and our 200 psig boiler (#10). Due to a manual bypass for pressure reducing valve (PRV) being cracked open, our 600 psig steam demand was more than expected. This caused operational problems with boiler # 5. These problems can be referenced in Cargill's letter to Cyndi Mollenhour on Dec 11, 2001.

Process upsets –  
(11 %)

Opacity exceedences due to process upsets are caused by sudden changes in Cargill's salt making process. We continue to focus our efforts on eliminating unexpected upsets in the process, and we expect to reduce these types of exceedences as we improve our operations. The causes of these upsets are variable. As with the heater changes, opacity exceedences due to process upsets have been significantly reduced with the operation of Boiler 10.

Stoker problems –  
(11 %)

Cargill installed new stokers in April 2001. The stokers are an upgrade intended to improve the boilers combustion. Periodic malfunction of the stokers disrupt the coal supply to the boiler causing opacity spikes. The instance of malfunction is not frequent but malfunctions can cause a series of spikes until the stokers are fixed. Cargill has been working with the stoker manufacturer, Detroit Stoker, and with our coal supplier C Reiss Coal Company to resolve any problems associated with the stokers. Cargill has determined that receiving foreign materials in our coal supply caused the majority of stoker problems in September and October of 2001. Upon identifying the problem, C Reiss Coal Company screened the remaining stockpile of coal. We did not experience any locked rotor conditions after screening the coal. We have worked through this stockpile of coal in the meantime, and have not experienced any stoker problems lately.

Heater changes -  
(8 %)

The changing of heat exchangers in the Alberger area is a downstream process that significantly impacts the steam demand from the boilers. Cargill significantly reduced opacity exceedences caused by changing heaters once we had our new gas-fired boiler (Boiler # 10) installed and operational. This new boiler was operational by late November. This new gas-fired boiler has been programmed to take all the swings in steam demand when it is operational. This allows our coal boiler (Boiler # 5) to run at a more steady state.

Start-up and Shutdown-  
(7 %)

Cargill had 6 opacity exceedences associated with the start-up and shutdown of the boilers and electrical generators. Cargill continues to work on our start-up and shutdown procedures to minimize opacity concerns.

Soot blowing and ash removal –  
(6 %)

Cargill had 5 opacity exceedences caused by soot blowing and pulling ash from the boiler and the mechanical collectors. Cargill believes the main reason for these exceedences is that boiler # 5 is slowly retaining more ash in the air passes. This problem will be corrected the first week of February when the boiler air passes will be cleaned.

Co-fire burner problems –  
(2%)

Cargill installed the new Coen co-fire burners on boiler # 5 in June of 2001. Occasionally these burners have tripped-out due to safety control parameters being reached. With the sudden loss of fuel the boiler compensates to maintain steam pressure by adding high levels of coal causing a temporary combustion problem. As the powerhouse operators become more familiar with the co-fire burners operation, they can prevent the burners from tripping out by reacting to changes before they cause a problem. This problem has been partially corrected by the automation of the combustion dampers and addition of the new gas fired boiler (#10) previously described.

If you have any questions please call me at 810-326-2763.

Sincerely,



Daniel Taylor  
Environmental Manager

cc: Cynthia Mollenhour, MDEQ  
Karen Kajiya-Mills, MDEQ  
Wade Richards  
Don Chutas  
Gene Chauffe  
Aaron Schultze  
Dale Mason

Attachments

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

**Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance**

Pollutant: SO<sub>2</sub>/NO<sub>x</sub>/TRS/H<sub>2</sub>S/CO/THC/HCl/Opacity Reporting period: 4th Q - 2001  
Diluent: O<sub>2</sub>/CO<sub>2</sub>

Company: Cargill Salt Unit Description:  
Boiler 5, 100,000 lb/hr

Emission Limit: R336.1301 (1) Total Source Operation Time:  
116,175 min/hours\*

Monitor Manufacturer, Model No., & Serial No.: Burag DR 290, # 403074

**Emission Data Summary**

1. Duration of Excess Emissions (EE) in reporting period due to:

- a. Startup/Shutdown
- b. Soot Blowing
- c. Control Equipment Problems
- d. Process Problems
- e. Other Known Causes
- f. Unknown Causes

36  
24  
216  
54  
162  
0

2. Total Duration of EE's

492

3. Total Duration of EE's/Total Source Operation Time X 100

0.42 %

19.58

**CEM System Summary**

1. CEM system downtime in reporting period due to:

- a. Monitor Equipment Malfunctions
- b. Non-Monitor Equipment Malfunctions
- c. Quality Assurance Calibrations (Excess)
- d. Other Known Causes
- e. Unknown Causes

0  
40  
45  
370  
0

2. Total CEM System Downtime

455

3. Total CEM System Downtime/Total Source Operation Time X 100

0.39 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: Daniel Kuyper Date: 1-24-02

**TABLE 1 - OPACITY EXCURSIONS**

<i>Date / Time</i>	<i>Boiler 5 Opacity</i>	<i>Comment</i>	<i>Comment Detail</i>
10/3/2001 18:06	33	co-fire	co-fire tripped - high furnace pressure; 600 # steam went low; caused boiler to swing
10/5/2001 22:48	30	stoker problems	working on east stoker
10/5/2001 22:54	30	stoker problems	"
10/9/2001 18:48	24	stoker problems	working on stoker
10/9/2001 18:54	34	stoker problems	caused boiler to swing
10/9/2001 19:00	28	stoker problems	"
10/10/2001 9:06	30	stoker problems	Took east stoker offline
10/10/2001 9:12	58	stoker problems	Working on east stoker
10/10/2001 9:18	30	stoker problems	"
10/14/2001 3:12	28	heater change	Changed C heater
10/14/2001 3:18	32	heater change	big steam demand on boiler # 5
10/16/2001 10:00	42	heater change	Change F heater
10/17/2001 12:00	29	heater change	change B heater
10/17/2001 17:06	43	co-fire	co-fire tripped out on high furnace pressure
10/18/2001 7:48	31	stoker problems	NE soot blow - put west stoker back on - was taken off @ 7 am
10/23/2001 9:12	41	process upset	FD and ID fan tripped on # 5 boiler
10/23/2001 9:18	78	process upset	Co- fire burners tripped, and # 9 boiler tripped
10/23/2001 9:24	42	process upset	working on starting up equipment again
10/23/2001 9:30	31	process upset	"
10/23/2001 9:36	42	process upset	"
10/29/2001 12:24	22	heater change	Change F heater
10/31/2001 3:48	40	control equipment problem	FD fan went to 100 %
10/31/2001 3:54	40	control equipment problem	FD fan went to 100 %
10/31/2001 4:00	36	control equipment problem	Boiler was swinging after taking F system off
10/31/2001 6:00	83	control equipment problem	Smoldering Coal - RTD transmitter
10/31/2001 6:06	51	control equipment problem	RTD
10/31/2001 6:12	34	control equipment problem	RTD
10/31/2001 6:36	79	control equipment problem	RTD
10/31/2001 6:42	43	control equipment problem	RTD
10/31/2001 6:54	60	control equipment problem	RTD
10/31/2001 7:00	59	control equipment problem	RTD
10/31/2001 7:48	37	control equipment problem	RTD
10/31/2001 7:54	42	control equipment problem	RTD
10/31/2001 8:00	38	control equipment problem	RTD
10/31/2001 8:06	46	control equipment problem	RTD
10/31/2001 8:12	51	control equipment problem	RTD
10/31/2001 8:18	35	control equipment problem	RTD
10/31/2001 8:24	31	control equipment problem	RTD
10/31/2001 8:30	26	control equipment problem	RTD
10/31/2001 9:12	23	control equipment problem	RTD
10/31/2001 9:18	23	control equipment problem	RTD
10/31/2001 9:24	23	control equipment problem	RTD
10/31/2001 9:30	25	control equipment problem	RTD
10/31/2001 9:36	25	control equipment problem	RTD
10/31/2001 9:42	25	control equipment problem	RTD
10/31/2001 9:48	27	control equipment problem	RTD
10/31/2001 9:54	26	control equipment problem	RTD

10/31/2001 10:00	30	control equipment problem	RTD
10/31/2001 10:06	38	control equipment problem	RTD
10/31/2001 10:12	41	control equipment problem	RTD
10/31/2001 10:18	86	control equipment problem	RTD
10/31/2001 10:24	62	control equipment problem	RTD
10/31/2001 10:42	48	control equipment problem	RTD
10/31/2001 14:06	49	control equipment problem	RTD
10/31/2001 14:18	36	control equipment problem	RTD
10/31/2001 14:24	53	control equipment problem	RTD
10/31/2001 14:54	33	control equipment problem	2:40 PM RTD replaced - re-lighting coal boiler - on computer control
11/1/2001 14:30	43	start-up/shutdown	Change-over to AC generator - from Edison power
11/7/2001 10:12	22	heater change	Put C system back online
11/7/2001 10:24	22	heater change	Put C system back online
11/7/2001 18:54	28	sootblow	East soot blow
11/8/2001 10:42	28	process upset	"C" system went from 17K to 50K
11/8/2001 18:54	23	sootblow	soot blow
11/10/2001 9:54	51	process upset	OFA fan quit - electrical
11/10/2001 10:00	88	process upset	OFA fan quit - electrical
11/19/2001 18:42	29	sootblow	Soot blow E
11/20/2001 20:48	40	start-up/shutdown	Power change over - from AC gen to Edison
11/27/2001 23:12	31	start-up/shutdown	#5 boiler start up coal initial feed
11/28/2001 7:06	27	start-up/shutdown	Change over power
11/28/2001 7:18	56	start-up/shutdown	switch to AC turbine from Edison power
12/3/2001 16:12	29	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 16:18	32	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 16:24	28	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 16:30	31	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 16:36	28	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 16:42	23	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 16:48	24	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 16:54	27	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 17:00	27	Boiler # 9	Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/7/2001 7:18	28	process upset	Removing clinker
12/11/2001 5:48	28	sootblow	East soot blow - look at baghouse damper and pressure differential
12/27/2001 21:00	41	start-up/shutdown	start-up

**TABLE 2 - 6 Minute Opacity Readings >20% (excluding opacity excursions listed in other table)**

<i>Date / Time</i>	<i>Boiler 5 Opacity</i>	<i>Actual Excursion</i>	<i>Comment</i>	<i>Comment Detail</i>
10/1/2001 8:18	23	No	within emission limit	NV - NW soot blow
10/2/2001 18:24	21	No	within emission limit	NV - E soot blow
10/3/2001 6:06	23	No	within emission limit	NV - NE soot blow
10/3/2001 18:00	21	No	within emission limit	NV - E soot blow
10/3/2001 19:36	21	No	within emission limit	NV - NE soot blow
10/4/2001 6:06	22	No	within emission limit	NV - NE soot blow
10/4/2001 7:18	21	No	within emission limit	NV - NW soot blow
10/4/2001 8:18	21	No	within emission limit	NV - soot blow
10/5/2001 21:48	21	No	within emission limit	NV - ?
10/5/2001 22:42	26	No	within emission limit	NV - East stoker jammed up
10/5/2001 23:00	21	No	within emission limit	NV - "
10/6/2001 19:12	24	No	within emission limit	NV - NE soot blow
10/7/2001 6:18	22	No	within emission limit	NV - East soot blow
10/7/2001 7:06	21	No	within emission limit	NV - NE soot blow - COM calibration
10/7/2001 7:24	22	No	within emission limit	NV - ?
10/8/2001 19:18	22	No	within emission limit	NV - Put steam on C system
10/9/2001 6:06	26	No	within emission limit	NV - East soot blow
10/9/2001 7:06	21	No	within emission limit	NV - NE soot blow
10/9/2001 18:42	23	No	within emission limit	NV - Problems with East stoker stopping
10/9/2001 23:24	21	No	within emission limit	NV - NE soot blow
10/10/2001 8:24	22	No	within emission limit	NV - clean baghouse
10/10/2001 11:30	21	No	within emission limit	NV - changed A system
10/10/2001 18:12	23	No	within emission limit	NV - East soot blow
10/10/2001 19:12	23	No	within emission limit	NV - NE soot blow
10/11/2001 6:06	21	No	within emission limit	NV - East soot blow
10/11/2001 7:06	21	No	within emission limit	NV - NE soot blow
10/12/2001 6:00	21	No	within emission limit	NV - East soot blow
10/12/2001 7:06	22	No	within emission limit	NV - NE soot blow
10/13/2001 7:06	21	No	within emission limit	NV - NE soot blow
10/13/2001 17:54	21	No	within emission limit	NV - soot blow
10/14/2001 7:06	21	No	within emission limit	NV - NE soot blow
10/14/2001 18:00	23	No	within emission limit	NV - soot blow
10/14/2001 19:06	21	No	within emission limit	NV - soot blow
10/15/2001 6:18	22	No	within emission limit	NV - East soot blow
10/15/2001 7:06	22	No	within emission limit	NV - NE soot blow
10/16/2001 7:06	22	No	within emission limit	NV - COM calibration - East soot blow at 7:35 am
10/16/2001 15:42	23	No	within emission limit	NV - Took off AC generator; bringing boiler # 5 down
10/18/2001 6:06	26	No	within emission limit	NV - East soot blow
10/18/2001 7:36	22	No	within emission limit	NV - clean baghouse
10/18/2001 10:24	24	No	within emission limit	NV - Change over power - from Edison to AC generator
10/18/2001 18:18	21	No	within emission limit	NV - E soot blow
10/18/2001 19:18	21	No	within emission limit	NV - NE soot blow
10/19/2001 6:06	23	No	within emission limit	NV - East soot blow
10/19/2001 8:12	26	No	within emission limit	NV - NW soot blow
10/19/2001 19:06	21	No	within emission limit	NV - NE soot blow
10/20/2001 7:24	22	No	within emission limit	NV - NE soot blow
10/20/2001 8:12	21	No	within emission limit	NV - NW soot blow
10/20/2001 18:06	21	No	within emission limit	NV - E soot blow

10/20/2001 19:06	21	No	within emission limit	NV - NE soot blow
10/21/2001 6:06	22	No	within emission limit	NV - East soot blow
10/21/2001 7:18	23	No	within emission limit	NV - NE soot blow
10/21/2001 19:00	21	No	within emission limit	NV - NE soot blow
10/21/2001 20:06	21	No	within emission limit	NV - NW soot blow
10/22/2001 18:00	22	No	within emission limit	NV - E soot blow
10/22/2001 19:06	23	No	within emission limit	NV - NE soot blow
10/23/2001 7:12	21	No	within emission limit	NV - NE soot blow
10/23/2001 8:18	21	No	within emission limit	NV - NW soot blow
10/23/2001 19:06	22	No	within emission limit	NV - ?
10/24/2001 18:12	23	No	within emission limit	NV - East soot
10/24/2001 19:12	25	No	within emission limit	NV - East soot
10/24/2001 21:00	21	No	within emission limit	NV - emptying mech. Collector and left bag house gate valve open
10/25/2001 19:06	22	No	within emission limit	NV - soot blow
10/25/2001 20:06	21	No	within emission limit	NV - soot blow
10/26/2001 6:06	22	No	within emission limit	NV -
10/26/2001 8:12	22	No	within emission limit	NV -
10/26/2001 17:54	23	No	within emission limit	NV -
10/26/2001 19:00	22	No	within emission limit	NV -
10/27/2001 6:00	23	No	within emission limit	NV - E soot blow
10/27/2001 7:00	23	No	within emission limit	NV - NE soot blow
10/28/2001 18:54	26	No	within emission limit	NV - E soot blow
10/28/2001 19:54	21	No	within emission limit	NV - NE soot blow
10/29/2001 8:06	21	No	within emission limit	NE soot blow
10/29/2001 9:12	21	No	within emission limit	NV - NW soot blow
10/29/2001 12:18	23	No	within emission limit	NV - Change F heater
10/29/2001 13:42	21	No	within emission limit	NV - Change A heater; swing from 22K to 40 K
10/29/2001 20:00	22	No	within emission limit	NV -
10/30/2001 18:06	21	No	within emission limit	NV - Soot blow
10/31/2001 4:06	21	No	within emission limit	NV - at 4:15 AM shut # 5 down - bad RTD transmitter
10/31/2001 7:06	23	No	within emission limit	NV - RTD
10/31/2001 9:06	21	No	within emission limit	NV - RTD
11/1/2001 18:54	22	No	within emission limit	NV - E soot blow
11/1/2001 19:54	22	No	within emission limit	NV - NE soot blow
11/2/2001 5:54	22	No	within emission limit	NV - East soot blow
11/2/2001 8:18	21	No	within emission limit	NV - NW soot blow
11/3/2001 5:54	26	No	within emission limit	NV - E soot blow
11/3/2001 6:54	23	No	within emission limit	NV - NE soot blow
11/3/2001 7:48	22	No	within emission limit	NV - NW soot blow
11/3/2001 17:54	23	No	within emission limit	NV - E soot blow
11/3/2001 18:54	21	No	within emission limit	NV - NE soot blow
11/3/2001 19:54	21	No	within emission limit	NV - NW soot blow
11/4/2001 7:48	27	No	within emission limit	NV - NE soot blow
11/4/2001 8:48	22	No	within emission limit	NV - NW soot blow
11/5/2001 17:54	24	No	within emission limit	NV - E soot blow
11/5/2001 18:54	22	No	within emission limit	NV - NE soot blow
11/6/2001 13:06	24	No	within emission limit	NV - Lost # 7 boiler - low water trip filling #10
11/7/2001 6:48	25	No	within emission limit	NV - E soot blow
11/7/2001 10:06	21	No	within emission limit	NV - Put C system back online
11/7/2001 20:54	23	No	within emission limit	NV - NE soot blow
11/7/2001 21:54	21	No	within emission limit	NV - NW soot blow
11/8/2001 7:06	25	No	within emission limit	NV - soot blow and calibration



11/8/2001 10:48	22	No	within emission limit	NV - "C" system went from 17K to 50K
11/8/2001 11:00	21	No	within emission limit	NV - "C" system went from 17K to 50K
11/8/2001 18:00	22	No	within emission limit	NV - soot blow?
11/9/2001 6:06	23	No	within emission limit	NV - E soot blow
11/9/2001 8:06	22	No	within emission limit	NV - NW soot blow
11/9/2001 17:48	21	No	within emission limit	NV - East soot blow
11/9/2001 18:54	22	No	within emission limit	NV - NE soot blow
11/10/2001 6:54	22	No	within emission limit	NV - NE soot blow
11/10/2001 7:54	24	No	within emission limit	NV - NW soot blow
11/10/2001 17:54	26	No	within emission limit	NV - E soot blow
11/10/2001 18:54	22	No	within emission limit	NV - NE soot blow
11/11/2001 5:48	24	No	within emission limit	NV - E soot blow
11/11/2001 6:54	26	No	within emission limit	NV - NE soot blow
11/11/2001 7:48	24	No	within emission limit	NV - NW soot blow
11/12/2001 6:48	25	No	within emission limit	NV - East soot blow
11/12/2001 7:54	22	No	within emission limit	NV - NE soot blow
11/12/2001 9:00	22	No	within emission limit	NV - NW soot blow
11/12/2001 17:54	22	No	within emission limit	NV - Soot blow E
11/13/2001 5:54	21	No	within emission limit	NV - Soot blow E
11/13/2001 6:48	24	No	within emission limit	NV - Soot blow NE
11/13/2001 7:54	25	No	within emission limit	NV - Soot blow NW
11/13/2001 18:00	22	No	within emission limit	NV - Soot blow E
11/14/2001 16:24	22	No	within emission limit	NV - B system lump - no notice to PH
11/14/2001 19:00	21	No	within emission limit	NV - Soot blow NE
11/16/2001 7:12	21	No	within emission limit	NV - Soot blow NE
11/17/2001 17:54	22	No	within emission limit	NV - Soot blow E
11/17/2001 18:54	22	No	within emission limit	NV - Soot blow NE
11/18/2001 18:42	23	No	within emission limit	NV - Soot blow E
11/19/2001 19:42	26	No	within emission limit	NV - Soot blow NE
11/19/2001 20:42	22	No	within emission limit	NV - Soot blow NW
11/20/2001 11:06	21	No	within emission limit	NV - Contractor bumped Co-fire emerg stop button
11/27/2001 17:18	27	No	within emission limit	NV - dust from fan
11/28/2001 7:06	27	yes	start-up/shutdown	Change over power
11/28/2001 8:00	22	No	within emission limit	NV - working on Over fire air damper
11/29/2001 18:42	21	No	within emission limit	NV - E soot blow
11/30/2001 6:06	21	No	within emission limit	NV - E soot blow
11/30/2001 15:00	26	No	within emission limit	NV - lost # 10 boiler, tripped; #5 went to 120 K
11/30/2001 20:42	21	No	within emission limit	NV - NE soot blow
12/1/2001 6:06	23	No	within emission limit	NV - E soot blow
12/1/2001 7:12	21	No	within emission limit	NV - NE soot blow
12/1/2001 18:42	23	No	within emission limit	NV - E soot blow
12/1/2001 20:36	24	No	within emission limit	NV - NE soot blow
12/2/2001 6:00	23	No	within emission limit	NV - E soot blow
12/2/2001 7:06	23	No	within emission limit	NV - NE soot blow
12/2/2001 17:48	22	No	within emission limit	NV - E soot blow
12/2/2001 20:48	24	No	within emission limit	NV - NW soot blow and baghouse clean
12/3/2001 6:06	23	No	within emission limit	NV - E soot blow
12/3/2001 7:06	22	No	within emission limit	NV - NE soot blow
12/3/2001 8:24	21	No	within emission limit	NV - Problems with # 5 FD fan; pressure dropped to 488 psi
12/3/2001 16:06	21	No	within emission limit	NV - Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed

12/3/2001 17:06	21	No	within emission limit	NV - Took # 9 boiler offline; # 5 running 90-100K; unlevel coal bed
12/3/2001 19:30	21	No	within emission limit	NV - E soot blow
12/3/2001 20:42	21	No	within emission limit	NV - NE soot blow
12/4/2001 8:48	24	No	within emission limit	NV - NE soot blow
12/5/2001 6:48	21	No	within emission limit	NV - NE soot blow
12/5/2001 7:48	23	No	within emission limit	NV - NW soot blow
12/6/2001 6:48	23	No	within emission limit	NV - NE soot blow
12/6/2001 9:48	21	No	within emission limit	NV - NW soot blow
12/7/2001 6:42	21	No	within emission limit	NV - East soot blow
12/7/2001 8:54	21	No	within emission limit	NV - NE soot blow
12/9/2001 7:12	21	No	within emission limit	NV - NE soot blow
12/10/2001 6:00	24	No	within emission limit	NV - East soot blow
12/10/2001 18:12	21	No	within emission limit	NV-E soot blow
12/11/2001 6:48	27	No	within emission limit	NV - NE soot blow
12/11/2001 8:48	22	No	within emission limit	NV - NW soot blow
12/12/2001 18:42	23	No	within emission limit	NV - E soot blow
12/13/2001 6:48	24	No	within emission limit	NV- East soot blow
12/13/2001 7:48	22	No	within emission limit	NV- NE soot blow
12/15/2001 5:54	24	No	within emission limit	NV - east soot blow
12/16/2001 3:24	23	No	within emission limit	NV - clinker in west mechanical collector
12/18/2001 18:00	22	No	within emission limit	NV - E soot blow
12/20/2001 5:54	23	No	within emission limit	NV - E soot blow
12/20/2001 7:48	21	No	within emission limit	NV - NE soot blow
12/21/2001 6:48	21	No	within emission limit	NV - NE soot blow



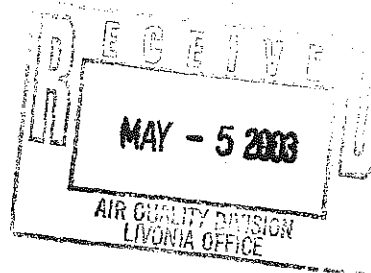
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AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

April 29, 2003

Ms. Lillian Wooley  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006



CJE  
Orange  
AL6240

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 1st quarter 2003

Dear Ms. Wooley:

This EER is being submitted in accordance with the quarterly reporting requirements in accordance with 40 CFR 60.7(c) and (d). Attached is summary report utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 1st quarter, Boiler No. 5 operated within the opacity emission 99.27% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill operated the boiler with a much higher Opacity baseline for the quarter. We were able to identify a major contributor to the higher baseline during our April 9, 2003 shutdown. At this time it was determined that the mechanical collector had structural problems with the dirty side tube sheet. The mechanical collector was cleaned and repairs were made to minimize the effects. The corrective parts were ordered to replace half of the mechanical collector. After this repair is complete and the parts are available we will evaluate the effectiveness and schedule the repair. The first half of parts have arrived and are scheduled to install week of May 5, 2003. The higher Opacity baseline from the structural problems was the primary reason Cargill had more incidents of opacity excursions in this quarter than in previous quarters. We will continue to identify and eliminate any other concerns as they are found. We had 3 unplanned shutdowns during the quarter. Cargill Salt, St. Clair has identified (four) main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

Cause

Corrective Action Taken or Preventative Measure Adopted

Soot blowing  
(37%)

The higher baseline caused our normal soot blowing operation to generate 56 exceedences during the quarter. We will continue to monitor and work with the procedures until the pollution control equipment is improved on Boiler No. 5.

Other Known Causes  
(31%)

We had 48 total exceedences from other known causes.

High electric load caused 27 of these exceedences in the plant. The steam from the #5 boiler turns an AC generator. When the electric load is high or fluctuates the boiler steam load follows. A motor that was intermittently grounding was a major cause of these. The motor has been replaced. Cargill has run a rental air compressor to alleviate the electric load until the repairs are made on the pollution control equipment.

8 exceedences were created when the hydraulic grate drive pump failed. We changed the pump and have a spare on site.

6 exceedences were created when the East mechanical collector pneumatic discharge gate was left open. This is a daily task by all operators to close after pulling the ash. On this day other emergencies created a diversion and the gate was left open.

4 exceedences were created when our General Service intake from the Saint Clair River froze and shut down key equipment in the facility. We used a rental trash pump to eliminate this concern during the harsh winter.

Two exceedences were created when the East mechanical collector bridged over with a clinker. The clinker was created from a hole in the housing. We patched the hole and have eliminated the excess oxygen.

One exceedence was created when the East stoker feeder RPM pickup was out of adjustment. We readjusted and tightened the setscrews.

Process problems  
(14%)

We had 21 exceedences attributed to Process problems.

18 of the exceedences were related to coal quality. With the higher baseline we have a hard time dealing with fines. We have worked with our coal supplier to insure we are getting a combination of particle sizes. We are installing a separate ductwork to help our ability to burn the coal when we do have elevated fines.

Three of our exceedences were due to high steam demand from our process.

Start-up and shutdowns  
(18%)

Cargill had more unplanned shutdowns than normal in first quarter, which resulted in 28 opacity exceedences associated with the start-up, and shutdown of the boilers and electrical generators.

14 were created when we switched from gas to coal.

8 were created when the co-fire burners were being lit.

5 were created during power change over from Detroit Edison to our AC generator.

One was created when the Fast ID fan wiring failed. The wiring and conduit had been run next to the boiler and the wiring melted. New wiring was installed and the conduit run was moved away from the boiler.

If you have any questions please call me at 810-326-2841.

Sincerely,



Wade D. Richards  
Powerhouse Superintendent

cc: Dan Taylor  
Don Chutas  
Gene Chauffe  
Janice Richards  
Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler  
Table 1 – Opacity Excursions  
Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	01/02/03	5:54 PM	21	Soot Blowing	Soot Blowing
2	01/03/03	5:54 AM	28	Soot Blowing	Soot Blowing
3	01/04/03	6:48 AM	22	Process Problems	Coal quality
4	01/04/03	6:54 AM	21	Process Problems	Coal quality
5	01/04/03	7:48 AM	21	Process Problems	Coal quality
6	01/04/03	7:54 AM	22	Process Problems	Coal quality
7	01/04/03	11:24 AM	21	Process Problems	Coal quality
8	01/04/03	11:30 AM	21	Process Problems	Coal quality
9	01/04/03	1:42 PM	21	Process Problems	Coal quality
10	01/05/03	1:54 AM	28	Soot Blowing	Soot Blowing
11	01/05/03	11:12 AM	23	Process Problems	Baghouse cleaning, coal quality
12	01/06/03	12:06 PM	21	Process Problems	Baghouse cleaning, coal quality
13	01/06/03	12:12 PM	21	Process Problems	Baghouse cleaning, coal quality
14	01/06/03	12:30 PM	21	Process Problems	Coal quality
15	01/06/03	5:06 PM	23	Process Problems	Baghouse cleaning, coal quality
16	01/06/03	5:12 PM	22	Process Problems	Baghouse cleaning, coal quality
17	01/06/03	6:30 PM	35	Process Problems	Baghouse cleaning, coal quality
18	01/07/03	2:00 AM	27	Soot Blowing	Soot Blowing
19	01/07/03	2:24 PM	22	Other Known Causes	East mechanical collector discharge gate left open
20	01/07/03	2:30 PM	23	Other Known Causes	East mechanical collector discharge gate left open
21	01/07/03	2:36 PM	22	Other Known Causes	East mechanical collector discharge gate left open
22	01/07/03	2:42 PM	24	Other Known Causes	East mechanical collector discharge gate left open
23	01/07/03	2:48 PM	21	Other Known Causes	East mechanical collector discharge gate left open
24	01/07/03	2:54 PM	22	Other Known Causes	East mechanical collector discharge gate left open
25	01/08/03	1:54 AM	30	Soot Blowing	Soot Blowing
26	01/08/03	1:54 PM	27	Soot Blowing	Soot Blowing
27	01/11/03	2:36 AM	23	Other Known Causes	General service plant intake frozen
28	01/11/03	2:42 AM	32	Other Known Causes	General service plant intake frozen
29	01/11/03	2:48 AM	48	Other Known Causes	General service plant intake frozen
30	01/11/03	2:54 AM	36	Other Known Causes	General service plant intake frozen
31	01/11/03	3:00 PM	27	Startup/Shutdown	Starting co-fire burners
32	01/12/03	1:54 AM	25	Startup/Shutdown	Switching from gas to coal
33	01/12/03	2:06 AM	21	Startup/Shutdown	Switching from gas to coal
34	01/12/03	2:12 AM	21	Startup/Shutdown	Switching from gas to coal
35	01/13/03	11:54 AM	28	Soot Blowing	Soot Blowing
36	01/13/03	5:54 PM	28	Soot Blowing	Soot Blowing
37	01/14/03	1:54 AM	28	Soot Blowing	Soot Blowing
38	01/14/03	5:54 AM	27	Soot Blowing	Soot Blowing
39	01/15/03	1:54 AM	31	Soot Blowing	Soot Blowing
40	01/15/03	5:48 PM	29	Soot Blowing	Soot Blowing
41	01/17/03	5:12 AM	37	Other Known Causes	Hydraulic grate pump failed
42	01/17/03	5:30 AM	22	Other Known Causes	Hydraulic grate pump failed
43	01/17/03	5:36 AM	25	Other Known Causes	Hydraulic grate pump failed
44	01/17/03	5:42 AM	31	Other Known Causes	Hydraulic grate pump failed
45	01/17/03	6:12 AM	22	Other Known Causes	Hydraulic grate pump failed

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
46	01/17/03	6:24 AM	22	Other Known Causes	Hydraulic grate pump failed
47	01/17/03	11:54 AM	28	Other Known Causes	Hydraulic grate pump failed
48	01/18/03	5:54 AM	27	Soot Blowing	Soot Blowing
49	01/22/03	7:18 AM	29	Startup/Shutdown	Power change over
50	01/22/03	7:24 AM	30	Startup/Shutdown	Power change over
51	01/22/03	7:30 AM	65	Startup/Shutdown	Power change over
52	01/22/03	7:36 AM	46	Startup/Shutdown	Power change over
53	01/22/03	7:48 AM	21	Startup/Shutdown	Power change over
54	01/22/03	3:00 PM	29	Startup/Shutdown	Starting co-fire burners
55	01/22/03	3:06 PM	29	Startup/Shutdown	Starting co-fire burners
56	01/22/03	8:06 PM	75	Startup/Shutdown	Switching from gas to coal
57	01/22/03	8:30 PM	23	Startup/Shutdown	Switching from gas to coal
58	01/22/03	9:06 PM	21	Startup/Shutdown	Switching from gas to coal
59	01/22/03	10:54 PM	21	Process Problems	Plant steam pull increase
60	01/22/03	11:06 PM	23	Process Problems	Plant steam pull increase
61	01/23/03	2:36 AM	41	Startup/Shutdown	Fast ID fan wiring failed
62	01/23/03	2:18 PM	43	Startup/Shutdown	Starting co-fire burners
63	01/23/03	7:06 PM	24	Startup/Shutdown	Starting co-fire burners
64	01/23/03	7:12 PM	24	Startup/Shutdown	Starting co-fire burners
65	01/23/03	11:36 PM	39	Process Problems	Plant steam pull increase
66	01/25/03	1:54 PM	27	Soot Blowing	Soot Blowing
67	01/28/03	9:00 AM	31	Other Known Causes	Plant electrical load high
68	01/28/03	9:12 AM	35	Other Known Causes	Plant electrical load high
69	01/28/03	9:18 AM	28	Other Known Causes	Plant electrical load high
70	01/28/03	9:24 AM	23	Other Known Causes	Plant electrical load high
71	01/28/03	9:30 AM	34	Other Known Causes	Plant electrical load high
72	01/28/03	9:36 AM	28	Other Known Causes	Plant electrical load high
73	01/28/03	9:42 AM	22	Other Known Causes	Plant electrical load high
74	01/28/03	6:54 PM	32	Soot Blowing	Soot Blowing
75	01/28/03	7:12 PM	21	Other Known Causes	Plant electrical load high
76	01/29/03	7:18 AM	23	Other Known Causes	Plant electrical load high
77	01/29/03	7:30 AM	21	Other Known Causes	Plant electrical load high
78	01/29/03	7:36 AM	24	Other Known Causes	Plant electrical load high
79	01/29/03	10:54 AM	31	Soot Blowing	Soot Blowing
80	01/30/03	6:00 AM	31	Soot Blowing	Soot Blowing
81	02/03/03	4:06 PM	24	Process Problems	Coal quality
82	02/03/03	4:12 PM	23	Process Problems	Coal quality
83	02/06/03	1:54 AM	29	Other Known Causes	Plant electrical load high
84	02/06/03	5:54 AM	23	Soot Blowing	Soot Blowing
85	02/06/03	2:12 PM	28	Other Known Causes	Plant electrical load high
86	02/06/03	6:54 PM	29	Soot Blowing	Soot Blowing
87	02/07/03	8:54 PM	29	Soot Blowing	Soot Blowing
88	02/13/03	5:54 PM	27	Soot Blowing	Soot Blowing
89	02/14/03	6:54 PM	28	Soot Blowing	Soot Blowing
90	02/15/03	7:00 AM	53	Soot Blowing	Soot Blowing

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
91	02/17/03	11:24 AM	23	Other Known Causes	East mechanical collector plugged, hole in housing
92	02/17/03	11:30 AM	23	Other Known Causes	East mechanical collector plugged, hole in housing
93	02/18/03	7:54 AM	23	Soot Blowing	Soot Blowing
94	02/24/03	5:54 PM	21	Soot Blowing	Soot Blowing
95	03/03/03	6:48 PM	30	Soot Blowing	Soot Blowing
96	03/05/03	2:06 PM	21	Startup/Shutdown	Starting co-fire burners
97	03/05/03	2:24 PM	25	Startup/Shutdown	Starting co-fire burners
98	03/05/03	8:48 PM	66	Startup/Shutdown	Switching from gas to coal
99	03/05/03	8:54 PM	43	Startup/Shutdown	Switching from gas to coal
100	03/05/03	9:06 PM	28	Startup/Shutdown	Switching from gas to coal
101	03/05/03	9:12 PM	30	Startup/Shutdown	Switching from gas to coal
102	03/05/03	9:18 PM	34	Startup/Shutdown	Switching from gas to coal
103	03/05/03	10:12 PM	34	Startup/Shutdown	Switching from gas to coal
104	03/05/03	10:18 PM	29	Startup/Shutdown	Switching from gas to coal
105	03/05/03	10:24 PM	21	Startup/Shutdown	Switching from gas to coal
106	03/10/03	7:54 PM	28	Soot Blowing	Soot Blowing
107	03/11/03	1:54 AM	27	Soot Blowing	Soot Blowing
108	03/11/03	5:54 AM	29	Soot Blowing	Soot Blowing
109	03/11/03	7:54 PM	21	Soot Blowing	Soot Blowing
110	03/12/03	1:54 AM	27	Other Known Causes	Plant electrical load high
111	03/12/03	2:06 AM	22	Other Known Causes	Plant electrical load high
112	03/12/03	2:24 AM	21	Other Known Causes	Plant electrical load high
113	03/12/03	6:12 AM	21	Soot Blowing	Soot Blowing
114	03/12/03	6:54 AM	21	Other Known Causes	Plant electrical load high
115	03/12/03	7:42 AM	21	Soot Blowing	Soot Blowing
116	03/12/03	1:06 PM	22	Other Known Causes	Plant electrical load high
117	03/12/03	1:48 PM	23	Other Known Causes	Plant electrical load high
118	03/12/03	3:36 PM	21	Other Known Causes	Plant electrical load high
119	03/12/03	4:12 PM	22	Other Known Causes	Plant electrical load high
120	03/12/03	4:18 PM	21	Other Known Causes	Plant electrical load high
121	03/12/03	4:24 PM	23	Other Known Causes	Plant electrical load high
122	03/12/03	4:30 PM	31	Other Known Causes	Plant electrical load high
123	03/12/03	5:06 PM	36	Other Known Causes	Plant electrical load high
124	03/13/03	5:54 AM	30	Soot Blowing	Soot Blowing
125	03/14/03	10:24 AM	27	Other Known Causes	East stoker rotor locked up
126	03/16/03	10:30 AM	34	Process Problems	Coal quality
127	03/17/03	5:54 PM	30	Soot Blowing	Soot Blowing
128	03/18/03	2:54 AM	27	Soot Blowing	Soot Blowing
129	03/18/03	6:54 AM	51	Soot Blowing	Soot Blowing
130	03/18/03	7:00 AM	43	Soot Blowing	Soot Blowing
131	03/20/03	6:54 AM	59	Soot Blowing	Soot Blowing
132	03/20/03	7:00 AM	47	Soot Blowing	Soot Blowing
133	03/22/03	6:48 AM	28	Soot Blowing	Soot Blowing
134	03/24/03	6:48 AM	28	Soot Blowing	Soot Blowing
135	03/24/03	11:54 AM	28	Soot Blowing	Soot Blowing



**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
136	03/24/03	7:54 PM	21	Soot Blowing	Soot Blowing
137	03/25/03	8:54 AM	29	Soot Blowing	Soot Blowing
138	03/25/03	5:54 PM	28	Soot Blowing	Soot Blowing
139	03/26/03	7:54 AM	24	Other Known Causes	Plant electrical load high
140	03/26/02	4:30 PM	23	Other Known Causes	Plant electrical load high
141	03/26/03	5:48 PM	30	Soot Blowing	Soot Blowing
142	03/26/03	9:48 PM	21	Soot Blowing	Soot Blowing
143	03/27/03	5:54 AM	28	Soot Blowing	Soot Blowing
144	03/27/03	7:00 PM	29	Soot Blowing	Soot Blowing
145	03/28/03	5:54 AM	29	Soot Blowing	Soot Blowing
146	03/28/03	5:48 PM	28	Soot Blowing	Soot Blowing
147	03/29/03	12:48 PM	33	Soot Blowing	Soot Blowing
148	03/30/03	5:54 AM	34	Soot Blowing	Soot Blowing
149	03/30/03	11:48 AM	27	Soot Blowing	Soot Blowing
150	03/31/03	5:54 AM	21	Soot Blowing	Soot Blowing
151	03/31/03	9:54 AM	21	Soot Blowing	Soot Blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
01/01/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
01/01/03	8:54 AM	21	No	Within emission limits	NV Soot blowing
01/01/03	5:48 PM	21	No	Within emission limits	NV Soot blowing
01/02/03	5:48 AM	22	No	Within emission limits	NV Soot blowing
01/02/03	12:48 PM	21	No	Within emission limits	NV Soot blowing
01/02/03	5:48 PM	22	No	Within emission limits	NV Soot blowing
01/02/03	6:00 PM	22	No	Within emission limits	NV Soot blowing
01/03/03	6:00 AM	21	No	Within emission limits	NV Soot blowing
01/03/03	7:48 AM	21	No	Within emission limits	NV Soot blowing
01/03/03	11:54 AM	21	No	Within emission limits	NV Soot blowing
01/03/03	12:00 PM	23	No	Within emission limits	NV Soot blowing
01/04/03	5:54 AM	25	No	Within emission limits	NV Soot blowing
01/04/03	6:36 AM	21	No	Within emission limits	NV Soot blowing
01/04/03	7:42 AM	22	No	Within emission limits	NV Soot blowing
01/04/03	8:00 AM	23	No	Within emission limits	NV Soot blowing
01/04/03	11:18 AM	21	No	Within emission limits	NV Coal fines
01/04/03	1:36 PM	21	No	Within emission limits	NV Coal fines
01/04/03	5:48 PM	23	No	Within emission limits	NV Soot blowing
01/04/03	6:54 PM	22	No	Within emission limits	NV Soot blowing
01/05/03	6:48 AM	23	No	Within emission limits	NV Soot blowing
01/05/03	10:12 AM	21	No	Within emission limits	NV Coal fines
01/05/03	11:06 AM	21	No	Within emission limits	NV Coal fines, bag house cleaning
01/05/03	1:54 PM	23	No	Within emission limits	NV Soot blowing
01/05/03	5:48 PM	25	No	Within emission limits	NV Soot blowing
01/06/03	12:00 AM	24	No	Within emission limits	NV Coal fines, bag house cleaning
01/06/03	5:54 AM	22	No	Within emission limits	NV Soot blowing
01/06/03	12:00 PM	21	No	Within emission limits	NV Coal fines, bag house cleaning
01/06/03	1:00 PM	21	No	Within emission limits	NV Coal fines, bag house cleaning
01/06/03	4:12 PM	22	No	Within emission limits	NV Coal fines, bag house cleaning
01/06/03	5:00 PM	22	No	Within emission limits	NV Coal fines, bag house cleaning
01/06/03	10:06 PM	22	No	Within emission limits	NV Coal fines, bag house cleaning
01/07/03	6:48 AM	26	No	Within emission limits	NV Soot blowing
01/07/03	8:54 AM	21	No	Within emission limits	NV Soot blowing
01/07/03	1:06 PM	21	No	Within emission limits	NV Coal quality and baghouse cleaning
01/07/03	2:06 PM	21	No	Within emission limits	NV Coal quality
01/07/03	3:00 PM	22	No	Within emission limits	NV Coal quality and baghouse cleaning
01/07/03	5:54 PM	21	No	Within emission limits	NV Soot blowing
01/07/03	6:54 PM	25	No	Within emission limits	NV Soot blowing
01/08/03	5:48 AM	22	No	Within emission limits	NV Soot blowing
01/09/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
01/09/03	7:42 AM	21	No	Within emission limits	NV Soot blowing
01/10/03	6:48 AM	24	No	Within emission limits	NV Soot blowing
01/10/03	11:42 AM	24	No	Within emission limits	NV Soot blowing
01/10/03	5:48 PM	21	No	Within emission limits	NV Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
01/11/03	2:30 AM	25	No	Within emission limits	NV General service intake froze up
01/11/03	2:18 PM	21	No	Within emission limits	NV Lighting co-fire burners on start-up
01/12/03	1:48 AM	25	No	Within emission limits	NV Switching to coal
01/12/03	2:00 AM	23	No	Within emission limits	NV Switching to coal
01/12/03	9:42 AM	24	No	Within emission limits	NV Run ID fan after boiler has been down
01/13/03	8:30 AM	22	No	Within emission limits	NV Calibration
01/13/03	1:54 PM	22	No	Within emission limits	NV Soot blowing
01/13/03	6:54 PM	21	No	Within emission limits	NV Soot blowing
01/14/03	2:48 PM	21	No	Within emission limits	NV Switching to coal
01/14/03	5:48 PM	26	No	Within emission limits	NV Switching to coal
01/15/03	5:54 AM	25	No	Within emission limits	NV Switching to coal
01/15/03	6:48 AM	21	No	Within emission limits	NV Switching to coal
01/16/03	5:48 AM	22	No	Within emission limits	NV Soot blowing
01/16/03	5:54 AM	23	No	Within emission limits	NV Calibration
01/17/03	5:54 AM	21	No	Within emission limits	NV Hydraulic grate pump failed
01/17/03	12:48 PM	22	No	Within emission limits	NV Hydraulic grate pump failed
01/17/03	6:00 AM	22	No	Within emission limits	NV Hydraulic grate pump failed
01/17/03	5:54 PM	22	No	Within emission limits	NV Soot blowing
01/18/03	6:54 AM	22	No	Within emission limits	NV Soot blowing
01/18/03	8:11 AM	21	No	Within emission limits	NV Air dryer - high load
01/19/03	5:54 AM	25	No	Within emission limits	NV Soot blowing
01/20/03	5:54 AM	21	No	Within emission limits	NV Soot blowing
01/20/03	1:54 PM	26	No	Within emission limits	NV Soot blowing
01/20/03	5:48 PM	24	No	Within emission limits	NV Soot blowing
01/21/03	5:53 AM	24	No	Within emission limits	NV Soot blowing
01/21/03	8:48 PM	22	No	Within emission limits	NV Soot blowing
01/22/03	1:48 AM	21	No	Within emission limits	NV Soot blowing
01/22/03	7:42 AM	26	No	Within emission limits	NV Start up
01/22/03	8:12 PM	22	No	Within emission limits	NV Switching to coal, start-up
01/22/03	9:00 PM	25	No	Within emission limits	NV Switching to coal, start-up
01/22/03	10:12 PM	21	No	Within emission limits	NV Switching to coal, start-up
01/22/03	11:00 PM	21	No	Within emission limits	NV Process change, system on
01/23/03	2:12 PM	23	No	Within emission limits	NV Bumping ID fan
01/23/03	7:00 PM	23	No	Within emission limits	NV Start up
01/24/03	4:36 AM	21	No	Within emission limits	NV Load too high
01/24/03	5:54 PM	24	No	Within emission limits	NV Soot blowing
01/25/03	5:54 AM	22	No	Within emission limits	NV Soot blowing
01/25/03	9:48 AM	21	No	Within emission limits	NV Soot blowing
01/26/03	7:48 AM	23	No	Within emission limits	NV Soot blowing
01/26/03	11:48 AM	21	No	Within emission limits	NV Soot blowing
01/27/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
01/27/03	1:24 PM	25	No	Within emission limits	NV Soot blowing
01/28/03	6:00 AM	25	No	Within emission limits	NV Soot blowing
01/28/03	8:00 AM	24	No	Within emission limits	NV Process change, system on

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
01/28/03	9:06 AM	21	No	Within emission limits	NV Soot blowing
01/28/03	4:54 PM	21	No	Within emission limits	NV Process change, system on
01/28/03	7:00 PM	21	No	Within emission limits	NV Process change, electric load high
01/29/03	5:06 AM	25	No	Within emission limits	NV Process change, electric load high
01/29/03	7:12 AM	26	No	Within emission limits	NV Process change, electric load high
01/29/03	6:36 PM	25	No	Within emission limits	NV Process change, electric load high
01/30/03	1:54 AM	26	No	Within emission limits	NV Soot blowing
01/30/03	9:48 AM	26	No	Within emission limits	NV Soot blowing
01/30/03	5:48 PM	23	No	Within emission limits	NV Soot blowing
01/31/03	5:48 AM	22	No	Within emission limits	NV Soot blowing
01/31/03	3:12 PM	21	No	Within emission limits	NV Process change, electric load high
01/31/03	5:54 PM	25	No	Within emission limits	NV Soot blowing
01/31/03	6:00 PM	21	No	Within emission limits	NV Process change, electric load high
02/01/03	6:48 AM	22	No	Within emission limits	NV Soot blowing
02/01/03	6:48 PM	23	No	Within emission limits	NV Soot blowing
02/02/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
02/02/03	11:48 AM	21	No	Within emission limits	NV Soot blowing
02/03/03	5:54 AM	22	No	Within emission limits	NV Soot blowing
02/03/03	6:54 AM	21	No	Within emission limits	NV Soot blowing
02/03/03	4:00 PM	22	No	Within emission limits	NV Coal change
02/03/03	7:30 PM	21	No	Within emission limits	NV Coal change
02/04/03	11:00 PM	21	No	Within emission limits	NV Process change, electric load high
02/05/03	6:00 AM	23	No	Within emission limits	NV Soot blowing
02/05/03	5:48 PM	22	No	Within emission limits	NV Soot blowing
02/06/03	2:18 PM	25	No	Within emission limits	NV Process change, electric load high
02/07/03	6:54 AM	22	No	Within emission limits	NV Soot blowing
02/07/03	6:54 PM	22	No	Within emission limits	NV Soot blowing
02/07/03	9:00 PM	24	No	Within emission limits	NV Soot blowing
02/08/03	1:54 AM	26	No	Within emission limits	NV Soot blowing
02/09/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
02/09/03	11:48 AM	22	No	Within emission limits	NV Soot blowing
02/10/03	5:48 AM	21	No	Within emission limits	NV Soot blowing
02/11/03	8:48 AM	24	No	Within emission limits	NV Soot blowing
02/11/03	11:54 AM	21	No	Within emission limits	NV Soot blowing
02/11/03	4:06 PM	23	No	Within emission limits	NV Process change, electric load high
02/12/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
02/12/03	11:54 AM	24	No	Within emission limits	NV Soot blowing
02/13/03	5:54 AM	25	No	Within emission limits	NV Soot blowing
02/13/03	6:48 AM	21	No	Within emission limits	NV Soot blowing
02/13/03	6:00 PM	22	No	Within emission limits	NV Soot blowing
02/14/03	12:48 AM	23	No	Within emission limits	NV Process change, electric load high
02/14/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
02/14/03	11:48 AM	24	No	Within emission limits	NV Soot blowing
02/14/03	8:54 PM	23	No	Within emission limits	NV Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
02/15/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
02/15/03	5:54 PM	24	No	Within emission limits	NV Soot blowing
02/15/03	6:54 PM	23	No	Within emission limits	NV Soot blowing
02/15/03	8:00 PM	23	No	Within emission limits	NV Soot blowing
02/16/03	1:54 AM	25	No	Within emission limits	NV Soot blowing
02/16/03	12:48 PM	23	No	Within emission limits	NV Soot blowing
02/17/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
02/17/03	7:54 AM	21	No	Within emission limits	NV Soot blowing
02/17/03	11:18 AM	21	No	Within emission limits	NV Precipitator plugged
02/18/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
02/18/03	6:54 AM	22	No	Within emission limits	NV Soot blowing
02/18/03	7:06 AM	21	No	Within emission limits	NV Soot blowing
02/18/03	11:54 AM	23	No	Within emission limits	NV Process change, electric load high
02/19/03	6:48 AM	24	No	Within emission limits	NV Soot blowing
02/20/03	6:48 AM	24	No	Within emission limits	NV Soot blowing
02/20/03	11:48 AM	22	No	Within emission limits	NV Soot blowing
02/20/03	11:48 PM	21	No	Within emission limits	NV Soot blowing
02/21/03	5:48 AM	22	No	Within emission limits	NV Soot blowing
02/21/03	6:54 AM	21	No	Within emission limits	NV Soot blowing
02/22/03	5:54 AM	22	No	Within emission limits	NV Soot blowing
02/22/03	1:54 PM	24	No	Within emission limits	NV Soot blowing
02/22/03	5:48 PM	23	No	Within emission limits	NV Soot blowing
02/23/03	6:54 AM	21	No	Within emission limits	NV Soot blowing
02/23/03	2:54 PM	24	No	Within emission limits	NV Soot blowing
02/23/03	5:48 PM	21	No	Within emission limits	NV Soot blowing
02/24/03	1:00 AM	24	No	Within emission limits	NV Soot blowing
02/24/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
02/24/03	5:48 PM	23	No	Within emission limits	NV Soot blowing
02/24/03	6:48 PM	21	No	Within emission limits	NV Soot blowing
02/25/03	1:54 AM	24	No	Within emission limits	NV Soot blowing
02/25/03	6:48 AM	22	No	Within emission limits	NV Soot blowing
02/25/03	5:48 PM	21	No	Within emission limits	NV Soot blowing
02/28/03	11:42 AM	22	No	Within emission limits	NV Soot blowing
02/28/03	11:48 PM	21	No	Within emission limits	NV Soot blowing
03/01/03	5:54 AM	22	No	Within emission limits	NV Soot blowing
03/03/03	12:06 PM	21	No	Within emission limits	NV Precipitator plugged
03/03/03	12:48 PM	21	No	Within emission limits	NV Soot blowing
03/03/03	6:54 PM	23	No	Within emission limits	NV Soot blowing
03/04/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
03/04/03	2:30 PM	25	No	Within emission limits	NV Precipitator plugged
03/04/03	5:48 PM	26	No	Within emission limits	NV Soot blowing
03/05/03	12:48 PM	21	No	Within emission limits	NV Start up bump ID fan
03/05/03	1:30 PM	23	No	Within emission limits	NV Start up bump ID fan
03/05/03	2:00 PM	23	No	Within emission limits	NV Start up bump ID fan

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
03/05/03	9:00 PM	26	No	Within emission limits	NV Start-up
03/05/03	10:06 PM	26	No	Within emission limits	NV Start up
03/06/03	5:54 AM	22	No	Within emission limits	NV Soot blowing
03/06/03	7:42 AM	23	No	Within emission limits	NV Start up change over
03/06/03	11:54 AM	24	No	Within emission limits	NV Soot blowing
03/07/03	6:48 AM	23	No	Within emission limits	NV Soot blowing
03/07/03	7:54 AM	23	No	Within emission limits	NV Soot blowing
03/07/03	6:48 PM	21	No	Within emission limits	NV Soot blowing
03/08/03	5:48 AM	24	No	Within emission limits	NV Soot blowing
03/08/03	6:54 AM	21	No	Within emission limits	NV Soot blowing
03/08/03	11:48 AM	25	No	Within emission limits	NV Soot blowing
03/09/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
03/09/03	11:48 AM	21	No	Within emission limits	NV Soot blowing
03/09/03	5:54 PM	24	No	Within emission limits	NV Soot blowing
03/10/03	2:54 AM	25	No	Within emission limits	NV Soot blowing
03/10/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
03/10/03	5:48 PM	25	No	Within emission limits	NV Soot blowing
03/10/03	8:54 PM	21	No	Within emission limits	NV Soot blowing
03/11/03	6:54 AM	22	No	Within emission limits	NV Soot blowing
03/11/03	7:48 PM	25	No	Within emission limits	NV Soot blowing
03/12/03	12:48 AM	22	No	Within emission limits	NV Soot blowing
03/12/03	2:00 AM	22	No	Within emission limits	NV Process change, electric load high
03/12/03	5:54 AM	24	No	Within emission limits	NV Soot blowing
03/12/03	6:00 AM	22	No	Within emission limits	NV Soot blowing
03/12/03	7:36 AM	21	No	Within emission limits	NV Soot blowing
03/12/03	12:00 PM	22	No	Within emission limits	NV Process change, electric load high
03/12/03	1:00 PM	24	No	Within emission limits	NV Process change, electric load high
03/12/03	3:30 PM	21	No	Within emission limits	NV Process change, electric load high
03/12/03	4:06 PM	23	No	Within emission limits	NV Process change, electric load high
03/12/03	9:00 PM	22	No	Within emission limits	NV Soot blowing
03/13/03	6:54 AM	21	No	Within emission limits	NV Soot blowing
03/13/03	1:42 PM	22	No	Within emission limits	NV Soot blowing
03/14/03	6:48 AM	25	No	Within emission limits	NV Soot blowing
03/14/03	7:54 AM	22	No	Within emission limits	NV Soot blowing
03/14/03	11:54 AM	26	No	Within emission limits	NV Soot blowing
03/14/03	12:00 PM	21	No	Within emission limits	NV Soot blowing
03/15/03	6:48 AM	26	No	Within emission limits	NV Soot blowing
03/15/03	8:54 AM	21	No	Within emission limits	NV Soot blowing
03/15/03	11:48 AM	24	No	Within emission limits	NV Soot blowing
03/16/03	6:48 AM	25	No	Within emission limits	NV Soot blowing
03/16/03	7:00 AM	23	No	Within emission limits	NV Soot blowing
03/16/03	8:24 AM	22	No	Within emission limits	NV Soot blowing
03/16/03	10:36 AM	22	No	Within emission limits	NV Process change, electric load high
03/17/03	5:54 AM	24	No	Within emission limits	NV Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
03/17/03	11:36 AM	21	No	Within emission limits	NV Soot blowing
03/17/03	12:00 PM	21	No	Within emission limits	NV Soot blowing
03/17/03	1:00 PM	21	No	Within emission limits	NV Soot blowing
03/17/03	6:48 PM	24	No	Within emission limits	NV Soot blowing
03/18/03	7:54 PM	21	No	Within emission limits	NV Soot blowing
03/18/03	11:54 PM	21	No	Within emission limits	NV Soot blowing
03/19/03	5:54 AM	22	No	Within emission limits	NV Soot blowing
03/19/03	6:00 AM	23	No	Within emission limits	NV Soot blowing
03/19/03	5:48 PM	26	No	Within emission limits	NV Soot blowing
03/19/03	6:48 PM	22	No	Within emission limits	NV Soot blowing
03/19/03	11:48 PM	26	No	Within emission limits	NV Soot blowing
03/20/03	5:54 AM	23	No	Within emission limits	NV Soot blowing
03/20/03	8:24 AM	23	No	Within emission limits	NV Process change, electric load high
03/20/03	5:54 PM	23	No	Within emission limits	NV Soot blowing
03/21/03	1:48 AM	24	No	Within emission limits	NV Soot blowing
03/21/03	5:48 AM	22	No	Within emission limits	NV Soot blowing
03/21/03	5:48 PM	22	No	Within emission limits	NV Soot blowing
03/22/03	11:48 AM	26	No	Within emission limits	NV Soot blowing
03/23/03	6:42 AM	25	No	Within emission limits	NV Soot blowing
03/23/03	11:48 AM	25	No	Within emission limits	NV Soot blowing
03/24/03	7:48 PM	22	No	Within emission limits	NV Soot blowing
03/24/03	7:54 PM	21	No	Within emission limits	Violation Soot blowing
03/25/03	6:48 AM	21	No	Within emission limits	NV Soot blowing
03/25/03	7:48 AM	22	No	Within emission limits	NV Soot blowing
03/25/03	11:48 AM	25	No	Within emission limits	NV Soot blowing
03/26/03	7:48 AM	24	No	Within emission limits	NV Soot blowing
03/26/03	8:00 AM	22	No	Within emission limits	NV Process change, electric load high
03/26/03	9:54 AM	22	No	Within emission limits	NV Soot blowing
03/26/03	4:24 PM	21	No	Within emission limits	NV Process change, electric load high
03/26/03	5:54 PM	26	No	Within emission limits	NV Soot blowing
03/26/03	6:00 PM	23	No	Within emission limits	NV Soot blowing
03/26/03	7:54 PM	23	No	Within emission limits	NV Soot blowing
03/26/03	9:42 PM	21	No	Within emission limits	NV Soot blowing
03/27/03	6:00 AM	22	No	Within emission limits	NV Soot blowing
03/27/03	9:48 AM	23	No	Within emission limits	NV Soot blowing
03/28/03	6:00 AM	25	No	Within emission limits	NV Soot blowing
03/28/03	3:06 PM	21	No	Within emission limits	NV Soot blowing
03/28/03	5:54 PM	23	No	Within emission limits	NV Soot blowing
03/29/03	5:54 AM	25	No	Within emission limits	NV Soot blowing
03/29/03	7:54 AM	22	No	Within emission limits	NV Soot blowing
03/30/03	7:48 AM	21	No	Within emission limits	NV Soot blowing
03/30/03	5:48 PM	21	No	Within emission limits	NV Soot blowing
03/31/03	5:48 AM	24	No	Within emission limits	NV Soot blowing
03/31/03	9:48 AM	23	No	Within emission limits	NV Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
03/31/03	5:48 PM	22	No	Within emission limits	NV Soot blowing
03/31/03	11:48 PM	25	No	Within emission limits	NV Soot blowing



# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## AIR QUALITY DIVISION

### Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity

Reporting period: First quarter, 2003

Company: Cargill Salt

Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1)

Total Source Operation Time 123618 min

Monitor Manufacturer, Model No., & Serial No.:

Durag DR 90, #403074

#### Emission Data Summary

1	Duration of Excess Emissions (EE) in reporting period due to:	
a.	Startup/Shutdown	<u>28</u>
b.	Soot Blowing	<u>56</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>20</u>
e.	Other Known Causes	<u>47</u>
f.	Unknown Causes	<u>0</u>
2	Total Durations of EE's	<u>906</u>
3	Total Duration of EE's/Total Source Operation Time X 100	<u>0.73 %</u>

#### CEM System Summary

1	CEM system downtime in reporting period due to:	
a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>3</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>
2	Total CEM System Downtime	<u>18</u>
3	Total CEM System Downtime/Total Source Operation Time X 100	<u>0.01 %</u>

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**RECEIVED**

MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

July 28, 2003

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 2nd quarter 2003

Dear Ms. Seidel:

This EER is being submitted in accordance with the quarterly reporting requirements in accordance with 40 CFR 60.7(c) and (d). Attached is summary report utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 2nd quarter, Boiler No. 5 operated within the opacity emission 99.21% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill installed the first half of the mechanical collector parts as scheduled the week of May 5, 2003. Our baseline dropped after this installation. We are gathering parts to complete the other half and currently have this work scheduled the fourth quarter of this year. We had 4 emergency shutdowns this quarter. Three of these shutdowns had to do with feed pumps. Cargill Salt, St. Clair has identified (four) main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

Cause

Corrective Action Taken or Preventative Measure Adopted

Soot blowing  
(34%)

The higher baseline caused our normal soot blowing operation to generate 50 exceedences during the quarter. With the change out of half of the mechanical collector, we have not had an Opacity exceedence due to soot blowing since May 15, 2003.

Start-up and shutdowns  
(30%)

Cargill had four emergency unplanned shutdowns this quarter. These resulted in 44 exceedences. Three of these emergency shutdowns were attributed to the new pump failure and inability to have it running. The manufacturer has changed the standard tolerances that the pump was originally set to. These tolerances have been raised to reflect the type of metal used in manufacturing the pump. The pump locked up due to the tighter tolerances.

25 were created when the co-fire burners were being lit. These exceedences are created when we purge our boiler after a shutdown prior to lighting the co-fire. The boiler has an 8-minute purge cycle to insure the firebox does not have any gas in it. During this purge we pull a tremendous vacuum on our boiler. The dry scale on the tubes flakes loose after the boiler cools.

12 were created when the feedwater pump locked up. See above for details.

5 were created when we switched from gas to coal.

2 were created when the West sight glass blew. The body of the sight glass had a cut and the body has been removed from service and a new sight glass body ordered and received for a spare.

Other Known Causes  
(15%)

We had 23 total exceedences from other known causes.

High electric load caused 11 of these exceedences in the plant. The steam from the #5 boiler turns an AC generator. When the electric load is high or fluctuates the boiler steam load follows. The 2-month old pump, 480 volt, which was our primary supply pump, was set at incorrect clearances. It was out of operation from February to July. This forced us to run our 30-yearold back-up steam feed water pump. This steam feed pump has deteriorated such that it does not operate with enough pressure to handle electrical swings or high boiler loads. Cargill had to rent an air compressor to alleviate the electric load. The 480 feed pump has been running since July 3, 2003. An additional pump, 4160, has been ordered to replace the steam backup. This pump will be installed in the third quarter of 2003.

4 exceedences were created when the East Stoker drag chain cotter pin came out and jammed the stoker. After inspection we found that all cotter pins were problems. These were changed with roll pins and corrected the problem. We changed all three drag chain pins.

4 exceedences were created when we changed the airflow scheme in the boiler to reduce Opacity. The changes were to try to run larger amounts of overfire air on the front of the boiler to maximize burning and minimize opacity. We returned to existing conditions and Opacity came down.

Two exceedences were caused by the failure of an air-actuated valve on the baghouse. The valve was changed.

One exceedence was caused when the co-fire burners tripped.

Process problems  
(19%)

We had 28 exceedences attributed to Process problems.

Burning 2 year-old coal from the old pulverizer coal boilers caused 19 of the exceedences. This presented a challenge because this coal was all of the fines from the old coal feed system. The bunker kept the coal very dry. The combination of the two coals swinging the boiler back and forth caused wide swings in airflows.

4 exceedences were from the baghouse. The first of the three cells raises the Opacity when it is put back on line after cleaning. With the improved operation of the mechanical collector this first cell is getting more dust. New "Gore-Tex" type bags are being investigated. These will be installed by the spring outage of 2004.

5 exceedences were related to the coal quality. With the higher baseline we have a hard time dealing with fines. All of these exceedences happened before we put in a separate ductwork to help our ability to burn the coal when we do have elevated fines.

Unknown Causes  
(2%)

4 exceedences were not identified. These unknown causes all were in a one-hour period.

If you have any questions please call me at 810-326-2841.

Sincerely,



Wade D. Richards  
Powerhouse Superintendent

cc: Dan Taylor  
Don Chutas  
Gene Chauffe  
Janice Richards  
Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler  
Table 1 – Opacity Excursions  
Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity Reporting period: Second quarter, 2003

Company: Cargill Salt Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1) Total Source Operation Time 112584 min

Monitor Manufacturer, Model No., & Serial No.: Durag DR 90, #403074

**Emission Data Summary**

1	Duration of Excess Emissions (EE) in reporting period due to:	
a.	Startup/Shutdown	264
b.	Soot Blowing	300
c.	Control Equipment Problems	0
d.	Process Problems	168
e.	Other Known Causes	138
f.	Unknown Causes	24
2	Total Durations of EE's	894
3	Total Duration of EE's/Total Source Operation Time X 100	0.79 %

**CEM System Summary**

1	CEM system downtime in reporting period due to:	
a.	Monitor Equipment Malfunctions	0
b.	Non-Monitor Equipment Malfunctions	0
c.	Quality Assurance Calibrations (Excess)	7
d.	Other Known Causes	0
e.	Unknown Causes	0
2	Total CEM System Downtime	42
3	Total CEM System Downtime/Total Source Operation Time X 100	0.04 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: \_\_\_\_\_

Date: 7/29/03

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	04/01/03	5:48 AM	28	Soot Blowing	Soot blowing
2	04/02/03	5:54 AM	28	Soot Blowing	Soot blowing
3	04/02/03	11:54 AM	31	Soot Blowing	Soot blowing
4	04/03/03	5:54 AM	33	Soot Blowing	Soot blowing
5	04/03/03	8:00 AM	30	Soot Blowing	Soot blowing
6	04/03/03	8:30 AM	30	Process Problems	Baghouse cleaning
7	04/03/03	5:48 PM	28	Soot Blowing	Soot blowing
8	04/04/03	2:54 AM	26	Soot Blowing	Soot blowing
9	04/04/03	5:54 AM	27	Soot Blowing	Soot blowing
10	04/04/03	7:36 AM	35	Process Problems	Baghouse cleaning
11	04/04/03	1:06 PM	30	Other Known Causes	Load too high, rental diesel air compressor
12	04/04/03	6:48 PM	31	Soot Blowing	Soot blowing
13	04/05/03	5:54 AM	37	Soot Blowing	Soot blowing
14	04/05/03	2:54 PM	34	Soot Blowing	Soot blowing
15	04/05/03	5:48 PM	30	Soot Blowing	Soot blowing
16	04/06/03	5:48 AM	30	Soot Blowing	Soot blowing
17	04/07/03	5:48 AM	34	Soot Blowing	Soot blowing
18	04/08/03	5:48 AM	27	Soot Blowing	Soot blowing
19	04/09/03	3:24 AM	27	Other Known Causes	Load too high big grinder started
20	04/09/03	5:48 AM	28	Soot Blowing	Soot blowing
21	04/09/03	7:18 AM	21	Other Known Causes	East stoker drive pin came out
22	04/09/03	7:36 AM	24	Other Known Causes	East stoker drive pin came out
23	04/09/03	7:42 AM	23	Other Known Causes	East stoker drive pin came out
24	04/09/03	7:48 AM	21	Other Known Causes	East stoker drive pin came out
25	04/11/03	7:48 PM	29	Startup/Shutdown	Startup cofire start
26	04/11/03	8:00 PM	47	Startup/Shutdown	Startup cofire start
27	04/11/03	8:12 PM	32	Startup/Shutdown	Startup cofire start
28	04/11/03	8:18 PM	27	Startup/Shutdown	Startup cofire start
29	04/12/03	1:06 AM	28	Startup/Shutdown	Startup switch to coal
30	04/12/03	1:30 AM	34	Startup/Shutdown	Startup switch to coal
31	04/12/03	1:36 AM	43	Startup/Shutdown	Startup switch to coal
32	04/12/03	1:42 AM	30	Startup/Shutdown	Startup switch to coal
33	04/12/03	3:48 PM	25	Soot Blowing	Soot blowing
34	04/12/03	7:54 PM	44	Soot Blowing	Soot blowing
35	04/12/03	8:06 PM	22	Soot Blowing	Soot blowing
36	04/13/03	6:54 AM	37	Other Known Causes	Process change operator changing air flows
37	04/13/03	7:06 AM	23	Other Known Causes	Process change operator changing air flows
38	04/13/03	7:12 AM	21	Other Known Causes	Process change operator changing air flows
39	04/13/03	7:48 AM	26	Other Known Causes	Process change operator changing air flows
40	04/13/03	5:48 PM	29	Other Known Causes	Load high, big grinder motor failure
41	04/14/03	3:00 AM	29	Other Known Causes	Load high, switch to rental air compressor
42	04/14/03	3:06 AM	37	Other Known Causes	Load high, switch to rental air compressor
43	04/14/03	3:12 AM	32	Other Known Causes	Load high, switch to rental air compressor
44	04/14/03	6:48 AM	27	Soot Blowing	Soot blowing
45	04/14/03	1:48 PM	21	Other Known Causes	High load, baghouse

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
46	04/14/03	6:42 PM	21	Other Known Causes	High load, baghouse
47	04/14/03	6:48 PM	21	Other Known Causes	High load, baghouse
48	04/15/03	7:42 AM	42	Other Known Causes	Baghouse air valve failure
49	04/15/03	7:54 AM	22	Other Known Causes	Baghouse air valve failure
50	04/15/03	7:48 PM	28	Soot Blowing	Soot blowing
51	04/16/03	5:48 AM	27	Soot Blowing	Soot blowing
52	04/17/03	2:54 AM	27	Soot Blowing	Soot blowing
53	04/17/03	8:54 PM	28	Soot Blowing	Soot blowing
54	04/18/03	1:54 AM	27	Soot Blowing	Soot blowing
55	04/18/03	2:36 AM	29	Other Known Causes	Load too high, air dryer on
56	04/18/03	5:54 AM	27	Soot Blowing	Soot blowing
57	04/18/03	3:48 PM	33	Soot Blowing	Soot blowing
58	04/18/03	5:54 PM	32	Soot Blowing	Soot blowing
59	04/19/03	5:54 AM	30	Soot Blowing	Soot blowing
60	04/19/03	3:48 PM	28	Soot Blowing	Soot blowing
61	04/20/03	5:54 PM	22	Soot Blowing	Soot blowing
62	04/20/03	10:54 PM	28	Soot Blowing	Soot blowing
63	04/21/03	5:54 AM	30	Soot Blowing	Soot blowing
64	04/21/03	2:48 PM	32	Soot Blowing	Soot blowing
65	04/21/03	5:48 PM	27	Soot Blowing	Soot blowing
66	04/21/03	10:54 PM	27	Soot Blowing	Soot blowing
67	04/24/03	5:48 AM	27	Soot Blowing	Soot blowing
68	04/25/03	8:12 AM	29	Other Known Causes	Load too high, air dryer on
69	04/25/03	4:48 PM	21	Process Problems	Baghouse
70	04/26/03	5:48 AM	28	Soot Blowing	Soot blowing
71	04/27/03	5:54 AM	27	Soot Blowing	Soot blowing
72	04/27/03	2:54 PM	34	Soot Blowing	Soot blowing
73	04/28/03	5:54 AM	29	Soot Blowing	Soot blowing
74	04/28/03	5:42 PM	22	Process Problems	Baghouse
75	04/28/03	8:54 PM	31	Soot Blowing	Soot blowing
76	04/29/03	6:48 AM	36	Soot Blowing	Soot blowing
77	04/30/03	4:18 PM	21	Process Problems	Coal quality
78	04/30/03	4:48 PM	22	Process Problems	Coal quality
79	04/30/03	4:54 PM	21	Process Problems	Coal quality
80	05/01/03	12:48 AM	21	Process Problems	Coal quality
81	05/01/03	12:54 AM	21	Process Problems	Coal quality
82	05/01/03	8:48 AM	35	Soot Blowing	Soot blowing
83	05/01/03	10:48 AM	31	Soot Blowing	Soot blowing
84	05/02/03	5:54 AM	21	Soot Blowing	Soot blowing
85	05/02/03	6:54 PM	30	Soot Blowing	Soot Blowing
86	05/02/03	11:42 PM	43	Startup/Shutdown	Startup/shutdown
87	05/02/03	11:48 PM	79	Startup/Shutdown	Startup/shutdown
88	05/03/03	12:06 AM	46	Startup/Shutdown	Startup/shutdown
89	05/03/03	12:12 AM	70	Startup/Shutdown	Startup/shutdown
90	05/11/03	1:06 PM	29	Startup/Shutdown	Shutdown/startup start co-fire burners

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
91	05/11/03	1:47 PM	39	Startup/Shutdown	Shutdown/startup start co-fire burners
92	05/12/03	1:54 AM	50	Startup/Shutdown	Shutdown/startup start co-fire burners
93	05/12/03	2:00 AM	55	Startup/Shutdown	Shutdown/startup start co-fire burners
94	05/12/03	2:06 AM	34	Startup/Shutdown	Shutdown/startup start co-fire burners
95	05/12/03	2:24 AM	38	Startup/Shutdown	Shutdown/startup start co-fire burners
96	05/12/03	2:30 AM	53	Startup/Shutdown	Shutdown/startup start co-fire burners
97	05/12/03	2:36 AM	25	Startup/Shutdown	Shutdown/startup start co-fire burners
98	05/12/03	2:42 AM	38	Startup/Shutdown	Shutdown/startup start co-fire burners
99	05/12/03	2:48 AM	53	Startup/Shutdown	Shutdown/startup start co-fire burners
100	05/12/03	2:54 AM	26	Startup/Shutdown	Shutdown/startup start co-fire burners
101	05/12/03	3:00 AM	29	Startup/Shutdown	Shutdown/startup start co-fire burners
102	05/12/03	3:24 AM	25	Startup/Shutdown	Shutdown/startup West sight glass blew
103	05/12/03	3:30 AM	22	Startup/Shutdown	Shutdown/startup West sight glass blew
104	05/12/03	3:36 PM	22	Other Known Causes	Load high, injection, baghouse
105	05/12/03	5:48 PM	26	Soot Blowing	Soot blowing
106	05/14/03	7:54 PM	21	Soot Blowing	Soot blowing
107	05/15/03	9:54 AM	33	Soot Blowing	Soot blowing
108	05/17/03	2:54 AM	37	Startup/Shutdown	Shutdown/start up #5 boiler feed water pump locked up
109	05/17/03	2:00 PM	29	Startup/Shutdown	Shutdown/start up coal in #5
110	05/17/03	10:30 PM	58	Other Known Causes	Co fire tripped
111	05/18/03	10:36 PM	29	Startup/Shutdown	Shutdown/start up nipple broke on feed pump
112	05/19/03	12:24 AM	31	Startup/Shutdown	Shutdown/start up co fire on
113	05/19/03	12:30 AM	57	Startup/Shutdown	Shutdown/start up co fire on
114	05/19/03	12:36 AM	79	Startup/Shutdown	Shutdown/start up co fire on
115	05/19/03	12:42 AM	73	Startup/Shutdown	Shutdown/start up co fire on
116	05/27/03	8:06 PM	24	Unknown Causes	Unknown
117	05/27/03	8:36 PM	21	Unknown Causes	Unknown
118	05/27/03	8:42 PM	22	Unknown Causes	Unknown
119	05/27/03	8:54 PM	25	Unknown Causes	Unknown
120	06/02/03	2:18 PM	59	Startup/Shutdown	Startup/shutdown lost #5 steam feed pump cross over pipe
121	06/02/03	2:24 PM	92	Startup/Shutdown	Startup/shutdown lost #5 steam feed pump cross over pipe
122	06/02/03	2:30 PM	82	Startup/Shutdown	Startup/shutdown lost #5 steam feed pump cross over pipe
123	06/02/03	2:36 PM	50	Startup/Shutdown	Startup/shutdown lost #5 steam feed pump cross over pipe
124	06/02/03	2:42 PM	34	Startup/Shutdown	Startup/shutdown lost #5 steam feed pump cross over pipe
125	06/02/03	3:06 PM	53	Startup/Shutdown	Startup/shutdown lost #5 steam feed pump cross over pipe
126	06/02/03	4:18 PM	28	Startup/Shutdown	Shutdown/start up co-fire units on
127	06/02/03	4:24 PM	30	Startup/Shutdown	Shutdown/start up co-fire units on
128	06/02/03	4:30 PM	25	Startup/Shutdown	Shutdown/start up co-fire units on
129	06/02/03	4:36 PM	37	Startup/Shutdown	Shutdown/start up co-fire units on
130	06/02/03	4:42 PM	28	Startup/Shutdown	Shutdown/start up co-fire units on
131	06/12/03	2:30 PM	21	Process Problems	Bad coal from 1 & 2 bunker
132	06/12/03	2:36 PM	21	Process Problems	Bad coal from 1 & 2 bunker
133	06/12/03	7:42 PM	21	Process Problems	Bad coal from 1 & 2 bunker
134	06/12/03	8:54 PM	22	Process Problems	Bad coal from 1 & 2 bunker
135	06/12/03	9:36 PM	23	Process Problems	Bad coal from 1 & 2 bunker



**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
136	06/12/03	9:42 PM	21	Process Problems	Bad coal from 1 & 2 bunker
137	06/15/03	12:54 AM	21	Process Problems	Bad coal from 1 & 2 bunker
138	06/15/03	1:12 AM	21	Process Problems	Bad coal from 1 & 2 bunker
139	06/15/03	1:24 AM	21	Process Problems	Bad coal from 1 & 2 bunker
140	06/17/03	7:36 PM	23	Process Problems	Bad coal from 1 & 2 bunker
141	06/17/03	7:42 PM	22	Process Problems	Bad coal from 1 & 2 bunker
142	06/17/03	8:30 PM	21	Process Problems	Bad coal from 1 & 2 bunker
143	06/17/03	8:36 PM	22	Process Problems	Bad coal from 1 & 2 bunker
144	06/17/03	8:42 PM	21	Process Problems	Bad coal from 1 & 2 bunker
145	06/17/03	10:42 PM	23	Process Problems	Bad coal from 1 & 2 bunker
146	06/17/03	10:48 PM	22	Process Problems	Bad coal from 1 & 2 bunker
147	06/17/03	10:54 PM	23	Process Problems	Bad coal from 1 & 2 bunker
148	06/17/03	11:06 PM	21	Process Problems	Bad coal from 1 & 2 bunker
149	06/21/03	12:36 AM	22	Process Problems	Bad coal from 1 & 2 bunker

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
04/01/03	7:47 AM	26	No	Within emission limits	Soot blowing
04/01/03	11:48 AM	26	No	Within emission limits	Soot blowing
04/01/03	5:54 PM	24	No	Within emission limits	Soot blowing
04/02/03	5:54 AM	28	No	Within emission limits	Soot blowing
04/02/03	7:48 AM	21	No	Within emission limits	Soot blowing
04/02/03	9:54 AM	22	No	Within emission limits	Soot blowing
04/02/03	3:54 PM	22	No	Within emission limits	Baghouse cleaning
04/02/03	4:00 PM	24	No	Within emission limits	Baghouse cleaning
04/02/03	6:48 PM	22	No	Within emission limits	Soot blowing
04/02/03	7:48 PM	21	No	Within emission limits	Soot blowing
04/03/03	6:00 AM	21	No	Within emission limits	Soot blowing
04/03/03	6:54 PM	22	No	Within emission limits	Soot blowing
04/04/03	2:48 AM	23	No	Within emission limits	Soot blowing
04/04/03	7:30 AM	23	No	Within emission limits	Baghouse cleaning
04/04/03	6:54 PM	24	No	Within emission limits	Soot blowing
04/04/03	7:00 PM	21	No	Within emission limits	Soot blowing
04/05/03	6:00 AM	21	No	Within emission limits	Soot blowing
04/05/03	7:48 AM	21	No	Within emission limits	Soot blowing
04/05/03	3:00 PM	21	No	Within emission limits	Soot blowing
04/05/03	5:54 PM	21	No	Within emission limits	Soot blowing
04/06/03	11:42 AM	25	No	Within emission limits	Soot blowing
04/06/03	5:54 PM	21	No	Within emission limits	Soot blowing
04/06/03	11:54 PM	22	No	Within emission limits	Soot blowing
04/07/03	7:42 AM	24	No	Within emission limits	Soot blowing
04/07/03	12:54 PM	21	No	Within emission limits	Soot blowing
04/07/03	2:48 PM	21	No	Within emission limits	Load too high air dryer on line
04/07/03	5:48 PM	22	No	Within emission limits	Soot blowing
04/07/03	11:48 PM	21	No	Within emission limits	Soot blowing
04/08/03	11:48 PM	21	No	Within emission limits	Soot blowing
04/09/03	5:54 AM	21	No	Within emission limits	Soot blowing
04/09/03	7:12 AM	21	No	Within emission limits	East stoker drive pin came out
04/11/03	8:06 PM	24	No	Within emission limits	Startup/ shutdown co-fire start
04/12/03	1:12 AM	21	No	Within emission limits	Startup switch to coal
04/12/03	3:42 AM	22	No	Within emission limits	Soot blowing
04/12/03	4:48 PM	24	No	Within emission limits	Soot blowing
04/12/03	7:48 PM	21	No	Within emission limits	Soot blowing
04/12/03	8:00 PM	25	No	Within emission limits	Soot blowing
04/13/03	7:00 AM	24	No	Within emission limits	Process change operator changing air flows
04/13/03	5:54 PM	24	No	Within emission limits	Load high, big grinder motor failure
04/13/03	6:48 PM	25	No	Within emission limits	Soot blowing
04/13/03	7:54 PM	21	No	Within emission limits	Soot blowing
04/14/03	6:54 AM	21	No	Within emission limits	Soot blowing
04/14/03	8:48 AM	23	No	Within emission limits	Soot blowing
04/14/03	1:42 PM	21	No	Within emission limits	High load, baghouse cleaning
04/14/03	6:36 PM	22	No	Within emission limits	High load, baghouse cleaning

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
04/14/03	7:00 PM	22	No	Within emission limits	Soot blowing
04/14/03	8:48 PM	26	No	Within emission limits	Soot blowing
04/14/03	9:48 PM	23	No	Within emission limits	Soot blowing
04/15/03	5:48 AM	22	No	Within emission limits	Soot blowing
04/15/03	6:42 AM	21	No	Within emission limits	Soot blowing
04/15/03	7:12 AM	24	No	Within emission limits	Baghouse air valve failure
04/15/03	1:42 PM	24	No	Within emission limits	Soot blowing
04/15/03	8:54 PM	23	No	Within emission limits	Soot blowing
04/15/03	9:48 PM	21	No	Within emission limits	Soot blowing
04/16/03	1:48 AM	26	No	Within emission limits	Soot blowing
04/16/03	11:48 AM	26	No	Within emission limits	Soot blowing
04/16/03	8:54 PM	26	No	Within emission limits	Soot blowing
04/16/03	9:00 PM	22	No	Within emission limits	Soot blowing
04/16/03	10:54 PM	21	No	Within emission limits	Soot blowing
04/17/03	12:00 AM	21	No	Within emission limits	Soot blowing
04/17/03	5:48 AM	23	No	Within emission limits	Soot blowing
04/17/03	6:54 AM	24	No	Within emission limits	Soot blowing
04/17/03	7:54 AM	23	No	Within emission limits	Soot blowing
04/17/03	11:48 AM	26	No	Within emission limits	Soot blowing
04/18/03	2:42 AM	23	No	Within emission limits	Baghouse, air dryer
04/18/03	7:48 AM	23	No	Within emission limits	Soot blowing
04/18/03	8:54 AM	22	No	Within emission limits	Soot blowing
04/18/03	6:00 PM	21	No	Within emission limits	Soot blowing
04/18/03	7:54 PM	23	No	Within emission limits	Soot blowing
04/18/03	9:48 PM	24	No	Within emission limits	Soot blowing
04/19/03	10:48 AM	25	No	Within emission limits	Soot blowing
04/19/03	1:48 PM	23	No	Within emission limits	Soot blowing
04/19/03	5:54 PM	26	No	Within emission limits	Soot blowing
04/19/03	10:48 PM	26	No	Within emission limits	Soot blowing
04/20/03	1:48 AM	23	No	Within emission limits	Soot blowing
04/20/03	5:54 AM	26	No	Within emission limits	Soot blowing
04/20/03	10:18 AM	24	No	Within emission limits	Soot blowing
04/20/03	5:48 PM	23	No	Within emission limits	Soot blowing
04/20/03	8:48 PM	25	No	Within emission limits	Soot blowing
04/21/03	9:48 AM	22	No	Within emission limits	Soot blowing
04/21/03	5:54 PM	22	No	Within emission limits	Soot blowing
04/21/03	7:54 PM	22	No	Within emission limits	Soot blowing
04/21/03	9:48 PM	24	No	Within emission limits	Soot blowing
04/22/03	6:48 AM	24	No	Within emission limits	Soot blowing
04/22/03	7:54 AM	22	No	Within emission limits	Soot blowing
04/22/03	11:00 AM	22	No	Within emission limits	Soot blowing
04/22/03	5:48 PM	21	No	Within emission limits	Soot blowing
04/23/03	5:48 AM	24	No	Within emission limits	Soot blowing
04/23/03	7:48 AM	24	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
04/23/03	8:54 AM	23	No	Within emission limits	Soot blowing
04/23/03	11:36 AM	24	No	Within emission limits	Soot blowing
04/23/03	5:48 PM	22	No	Within emission limits	Soot blowing
04/23/03	6:48 PM	21	No	Within emission limits	Soot blowing
04/24/03	5:54 AM	21	No	Within emission limits	Soot blowing
04/24/03	6:54 AM	21	No	Within emission limits	Soot blowing
04/24/03	7:54 AM	26	No	Within emission limits	Soot blowing
04/24/03	11:54 AM	23	No	Within emission limits	Soot blowing
04/25/03	6:42 AM	24	No	Within emission limits	Soot blowing
04/25/03	7:48 AM	22	No	Within emission limits	Soot blowing
04/25/03	8:06 AM	25	No	Within emission limits	Load too high, air dryer on
04/25/03	11:48 AM	24	No	Within emission limits	Soot blowing
04/25/03	4:42 PM	21	No	Within emission limits	Baghouse cleaning
04/25/03	7:54 PM	25	No	Within emission limits	Soot blowing
04/25/03	8:54 PM	21	No	Within emission limits	Soot blowing
04/25/03	9:54 PM	21	No	Within emission limits	Soot blowing
04/26/03	6:48 AM	22	No	Within emission limits	Soot blowing
04/26/03	11:42 AM	24	No	Within emission limits	Soot blowing
04/26/03	5:54 PM	22	No	Within emission limits	Soot blowing
04/26/03	11:48 PM	21	No	Within emission limits	Soot blowing
04/27/03	6:00 AM	21	No	Within emission limits	Soot blowing
04/27/03	8:54 AM	23	No	Within emission limits	Soot blowing
04/27/03	5:48 PM	21	No	Within emission limits	Soot blowing
04/28/03	4:06 PM	21	No	Within emission limits	Soot blowing
04/28/03	5:36 PM	22	No	Within emission limits	Baghouse
04/28/03	6:54 PM	21	No	Within emission limits	Soot blowing
04/28/03	7:00 PM	21	No	Within emission limits	Soot blowing
04/28/03	9:00 PM	23	No	Within emission limits	Soot blowing
04/29/03	6:54 AM	21	No	Within emission limits	Soot blowing
04/29/03	7:42 AM	24	No	Within emission limits	Soot blowing
04/29/03	8:48 AM	24	No	Within emission limits	Soot blowing
04/29/03	5:48 PM	24	No	Within emission limits	Soot blowing
04/30/03	5:48 AM	23	No	Within emission limits	Soot blowing
04/30/03	6:18 AM	23	No	Within emission limits	Soot blowing
04/30/03	3:36 PM	21	No	Within emission limits	Coal quality
04/30/03	4:06 PM	21	No	Within emission limits	Coal quality
04/30/03	5:00 PM	23	No	Within emission limits	Coal quality
04/30/03	6:24 PM	21	No	Within emission limits	Coal quality
04/30/03	7:18 PM	21	No	Within emission limits	Coal quality
04/30/03	8:42 PM	21	No	Within emission limits	Coal quality
05/01/03	12:36 AM	21	No	Within emission limits	Coal quality
05/01/03	7:12 AM	21	No	Within emission limits	Soot blowing
05/01/03	11:54 AM	25	No	Within emission limits	Soot blowing
05/01/03	5:54 PM	25	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
05/01/03	6:12 PM	21	No	Within emission limits	Soot blowing
05/01/03	9:30 PM	22	No	Within emission limits	Soot blowing
05/02/03	1:48 AM	22	No	Within emission limits	Soot blowing
05/02/03	5:48 AM	25	No	Within emission limits	Soot blowing
05/02/03	7:48 AM	24	No	Within emission limits	Soot blowing
05/02/03	8:48 AM	22	No	Within emission limits	Soot blowing
05/02/03	7:54 PM	26	No	Within emission limits	Soot blowing
05/02/03	9:42 PM	23	No	Within emission limits	Soot blowing
05/02/03	11:36 PM	21	No	Within emission limits	Startup/shutdown
05/11/03	12:54 PM	21	No	Within emission limits	Shutdown/startup start co-fire burners
05/11/03	1:00 PM	22	No	Within emission limits	Shutdown/startup start co-fire burners
05/11/03	1:54 PM	21	No	Within emission limits	Shutdown/startup start co-fire burners
05/12/03	2:12 AM	26	No	Within emission limits	Shutdown/startup start co-fire burners
05/12/03	3:06 AM	21	No	Within emission limits	Shutdown/startup start co-fire burners
05/12/03	4:54 AM	24	No	Within emission limits	Shutdown/startup start co-fire burners
05/12/03	5:00 AM	21	No	Within emission limits	Shutdown/startup start co-fire burners
05/12/03	6:36 AM	21	No	Within emission limits	Soot blowing
05/12/03	3:30 PM	23	No	Within emission limits	Injection pumps, baghouse
05/12/03	5:42 PM	23	No	Within emission limits	Soot blowing
05/12/03	6:36 PM	21	No	Within emission limits	Soot blowing
05/13/03	5:54 AM	22	No	Within emission limits	Soot blowing
05/13/03	6:48 AM	23	No	Within emission limits	Soot blowing
05/13/03	10:48 AM	21	No	Within emission limits	Soot blowing
05/13/03	9:00 PM	22	No	Within emission limits	Soot blowing
05/14/03	6:54 AM	23	No	Within emission limits	Soot blowing
05/14/03	7:48 AM	24	No	Within emission limits	Soot blowing
05/14/03	10:00 PM	21	No	Within emission limits	Soot blowing
05/15/03	8:48 AM	26	No	Within emission limits	Soot blowing
05/15/03	2:36 PM	21	No	Within emission limits	Over fire fan tripped
05/17/03	2:06 PM	26	No	Within emission limits	Shutdown/start up coal in #5
05/18/03	9:48 AM	21	No	Within emission limits	Shutdown/start up switch power
05/19/03	12:48 AM	25	No	Within emission limits	Shutdown/start up co fire on
05/19/03	7:54 PM	23	No	Within emission limits	Soot blowing
05/20/03	9:48 AM	26	No	Within emission limits	Soot blowing
05/21/03	7:48 AM	23	No	Within emission limits	Soot blowing
05/22/03	5:54 AM	26	No	Within emission limits	Soot blowing
05/23/03	6:00 AM	21	No	Within emission limits	Soot blowing
05/26/03	11:36 AM	21	No	Within emission limits	Soot blowing
05/26/03	5:54 PM	22	No	Within emission limits	Soot blowing
05/27/03	7:54 PM	23	No	Within emission limits	Soot blowing
05/27/03	8:00 PM	23	No	Within emission limits	Unknown
05/28/03	10:42 AM	21	No	Within emission limits	Baghouse
05/28/03	11:36 AM	21	No	Within emission limits	Soot blowing
05/28/03	6:48 PM	21	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
05/29/03	7:48 AM	21	No	Within emission limits	Soot blowing
05/30/03	9:48 AM	21	No	Within emission limits	Soot blowing
05/30/03	5:48 PM	22	No	Within emission limits	Soot blowing
05/30/03	7:36 PM	22	No	Within emission limits	Soot blowing
05/31/03	7:54 AM	21	No	Within emission limits	Soot blowing
06/01/03	5:54 PM	23	No	Within emission limits	Soot blowing
06/02/03	2:48 PM	25	No	Within emission limits	Startup/shutdown lost #5 steam feed pump cross o
06/02/03	3:18 PM	26	No	Within emission limits	Startup/shutdown lost #5 steam feed pump cross o
06/02/03	4:30 PM	25	No	Within emission limits	Shutdown/start up co-fire units on
06/03/03	8:36 AM	22	No	Within emission limits	Soot blowing
06/03/03	5:54 PM	22	No	Within emission limits	Soot blowing
06/04/03	6:54 AM	21	No	Within emission limits	Soot blowing
06/04/03	11:36 AM	22	No	Within emission limits	Soot blowing
06/07/03	6:54 AM	23	No	Within emission limits	Soot blowing
06/08/03	6:48 PM	21	No	Within emission limits	Soot blowing
06/09/03	11:48 AM	21	No	Within emission limits	Soot blowing
06/09/03	5:48 PM	25	No	Within emission limits	Soot blowing
06/09/03	7:48 PM	21	No	Within emission limits	Soot blowing
06/09/03	8:48 PM	22	No	Within emission limits	Soot blowing
06/10/03	5:48 PM	22	No	Within emission limits	Soot blowing
06/10/03	7:54 PM	21	No	Within emission limits	Soot blowing
06/11/03	9:36 AM	21	No	Within emission limits	Soot blowing
06/11/03	11:54 AM	22	No	Within emission limits	Soot blowing
06/11/03	3:36 PM	21	No	Within emission limits	Soot blowing
06/11/03	5:48 PM	21	No	Within emission limits	Soot blowing
06/11/03	6:00 PM	23	No	Within emission limits	Soot blowing
06/11/03	7:48 PM	23	No	Within emission limits	Soot blowing
06/12/03	11:48 AM	21	No	Within emission limits	Soot blowing
06/12/03	1:36 PM	21	No	Within emission limits	Bad coal from 1 & 2 bunker
06/12/03	2:24 PM	21	No	Within emission limits	Bad coal from 1 & 2 bunker
06/12/03	6:48 PM	21	No	Within emission limits	Soot blowing
06/12/03	7:36 PM	23	No	Within emission limits	Bad coal from 1 & 2 bunker
06/12/03	8:48 PM	25	No	Within emission limits	Bad coal from 1 & 2 bunker
06/12/03	9:12 PM	21	No	Within emission limits	Bad coal from 1 & 2 bunker
06/12/03	10:36 PM	21	No	Within emission limits	Soot blowing
06/12/03	11:48 PM	24	No	Within emission limits	Soot blowing
06/13/03	5:54 AM	21	No	Within emission limits	Soot blowing
06/13/03	7:54 AM	23	No	Within emission limits	Soot blowing
06/13/03	9:54 AM	23	No	Within emission limits	Soot blowing
06/13/03	5:48 PM	22	No	Within emission limits	Soot blowing
06/14/03	5:48 PM	22	No	Within emission limits	Soot blowing
06/14/03	6:48 PM	24	No	Within emission limits	Soot blowing
06/14/03	7:48 PM	22	No	Within emission limits	Soot blowing
06/15/03	12:36 AM	21	No	Within emission limits	Bad coal from 1 & 2 bunker
06/15/03	1:00 AM	21	No	Within emission limits	Bad coal from 1 & 2 bunker

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
06/15/03	8:48 AM	21	No	Within emission limits	Soot blowing
06/15/03	5:48 PM	21	No	Within emission limits	Soot blowing
06/16/03	5:54 AM	21	No	Within emission limits	Soot blowing
06/16/03	9:30 AM	25	No	Within emission limits	Baghouse cleaning
06/16/03	5:48 PM	23	No	Within emission limits	Soot blowing
06/17/03	5:48 AM	21	No	Within emission limits	Soot blowing
06/17/03	6:54 PM	25	No	Within emission limits	Bad coal from 1 & 2 bunker
06/17/03	7:30 PM	21	No	Within emission limits	Bad coal from 1 & 2 bunker
06/17/03	8:18 PM	21	No	Within emission limits	Bad coal from 1 & 2 bunker
06/17/03	9:36 PM	22	No	Within emission limits	Soot blowing
06/17/03	10:36 PM	22	No	Within emission limits	Bad coal from 1 & 2 bunker
06/17/03	11:00 PM	22	No	Within emission limits	Bad coal from 1 & 2 bunker
06/18/03	12:42 AM	21	No	Within emission limits	Soot blowing
06/18/03	5:48 AM	22	No	Within emission limits	Soot blowing
06/18/03	6:48 AM	22	No	Within emission limits	Soot blowing
06/18/03	6:48 PM	22	No	Within emission limits	Soot blowing
06/18/03	11:36 PM	23	No	Within emission limits	Soot blowing
06/19/03	12:30 AM	21	No	Within emission limits	Baghouse cleaning
06/19/03	1:48 AM	21	No	Within emission limits	Soot blowing
06/19/03	6:54 PM	21	No	Within emission limits	Soot blowing
06/19/03	7:54 PM	22	No	Within emission limits	Soot blowing
06/20/03	5:54 PM	23	No	Within emission limits	Soot blowing
06/21/03	12:30 AM	22	No	Within emission limits	Coal quality
06/21/03	7:48 AM	22	No	Within emission limits	Soot blowing
06/21/03	9:48 AM	22	No	Within emission limits	Soot blowing
06/22/03	7:54 AM	23	No	Within emission limits	Soot blowing
06/22/03	5:48 PM	22	No	Within emission limits	Soot blowing
06/23/03	2:48 PM	25	No	Within emission limits	Soot blowing
06/23/03	6:48 PM	22	No	Within emission limits	Soot blowing
06/23/03	7:48 PM	23	No	Within emission limits	Soot blowing
06/23/03	9:48 PM	25	No	Within emission limits	Soot blowing
06/24/03	3:36 AM	21	No	Within emission limits	Soot blowing
06/24/03	5:54 AM	26	No	Within emission limits	Soot blowing
06/24/03	6:42 AM	23	No	Within emission limits	Soot blowing
06/24/03	7:54 AM	25	No	Within emission limits	Soot blowing
06/24/03	8:48 PM	23	No	Within emission limits	Soot blowing
06/26/03	5:48 PM	24	No	Within emission limits	Soot blowing
06/27/03	5:54 PM	25	No	Within emission limits	Soot blowing
06/27/03	7:54 PM	22	No	Within emission limits	Soot blowing
06/27/03	8:54 PM	22	No	Within emission limits	Soot blowing
06/28/03	12:42 AM	21	No	Within emission limits	Soot blowing
06/28/03	1:48 AM	22	No	Within emission limits	Soot blowing
06/28/03	5:48 PM	25	No	Within emission limits	Soot blowing
06/29/03	7:54 AM	22	No	Within emission limits	Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
06/29/03	5:48 PM	24	No	Within emission limits	Soot blowing
06/30/03	7:48 AM	21	No	Within emission limits	Soot blowing
06/30/03	2:48 PM	21	No	Within emission limits	Soot blowing







*Resubmitted with  
corrections 9/12/03*

*Wade Richards*

*Filed 9/22/03  
WMA*

July 29, 2003

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

**RECEIVED**

MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

Re: Boiler No. 10 Semi-annual Emissions Report for the 1st half of 2003

Dear Ms. Seidel:

This Semiannual Emissions Report is being submitted in accordance with the reporting requirements in Permit No. 184-01A Special Conditions 1.11 (h). Boiler No. 10 was operated using Natural Gas only during the entire reporting period. No excess emissions occurred during the semiannual reporting period of the first half of 2003.

The average NO<sub>x</sub> and CO<sub>2</sub> emission rates (lb/MM Btu heat input) and the 30-day average NO<sub>x</sub> emission rates (lb/MM Btu heat input) are summarized in Attachment A.

There was zero operating days when the 30-day average NO<sub>x</sub> emission rate exceeded the limit under 60.44b.

Pollution data was obtained throughout the reporting period. In 8 of these days, January 23 through January 29 and February 4, the span check differed from the calibration gas by more than 5%. This period was the first days of severely cold weather and daily span check was adversely affected. Our control system alarmed as programmed when the span exceeded 2.5%. This alarm was inadvertently acknowledged and the alarm did not reset resulting. The programming was changed so the alarm cannot be acknowledged without it being repaired. The problem of out of specification span checks during severely cold weather was corrected by installing an improved heating system in the Motor Control Center where the equipment is located.

Emission data excluded from the calculations of average emission rates and reasons for excluding data:

There were 8 days excluded during the test period. January 23 through January 29 and February 4. These days were the first days of cold weather to adversely affect our data. It took until February 5, 2003 to identify the problem and rectify it.

"F" factor is 1,040 dscf / MMBtu.

The pollutant concentrations did not exceed full span of the CEMS during the quarter.

No modifications were made to the CEM that could affect the ability of the CEMS to comply with PS 2 or 3.

Attachment B contains the daily CEMS drift test.

Attachment C contains the NO<sub>x</sub> / CO<sub>2</sub> Span gas Certificate of Analysis.

If you have any questions please call me at 810-326-2841.

Sincerely,



Wade D. Richards  
Powerhouse Superintendent

cc: Dan Taylor  
Don Chutas  
Gene Chauffe  
Janice Richards  
Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Boiler No. 10 NO<sub>x</sub> Daily Averages, Emission Data, 30-Day Average NO<sub>x</sub>  
Boiler No. 10 Daily Calibration (zero / span)  
Certificate of Analysis / EPA Protocol Gas

Attachment A  
Boiler 10 Emissions Data 30-day average NOx

Date	NOx Parts per Million	NOx Pounds per Mbtu	CO2	30-Day Average	Comments
6/30/2003	47.3	0.077	7.57	0.075	
6/29/2003	44.95	0.074	7.47	0.075	
6/28/2003	43.93	0.074	7.35	0.074	
6/27/2003	41.97	0.072	7.27	0.074	
6/26/2003	42.94	0.072	7.4	0.074	
6/25/2003	44.32	0.073	7.54	0.075	
6/24/2003	45.42	0.074	7.58	0.075	
6/23/2003	45.44	0.075	7.52	0.075	
6/22/2003	47.52	0.078	7.56	0.075	
6/21/2003	48.17	0.079	7.59	0.075	
6/20/2003	48.54	0.079	7.58	0.075	
6/19/2003	47.6	0.078	7.54	0.075	
6/18/2003	42.6	0.071	7.47	0.074	
6/17/2003	44.15	0.072	7.55	0.074	
6/16/2003	46.41	0.076	7.57	0.074	
6/15/2003	42.4	0.07	7.45	0.074	
6/14/2003	43.44	0.072	7.47	0.074	
6/13/2003	41.79	0.071	7.3	0.074	
6/12/2003	40.72	0.07	7.2	0.074	
6/11/2003	41.38	0.069	7.41	0.075	
6/10/2003	44.11	0.074	7.42	0.075	
6/9/2003	45.59	0.077	7.39	0.075	
6/8/2003	40.52	0.069	7.29	0.075	
6/7/2003	40.55	0.068	7.37	0.076	
6/6/2003	45.81	0.075	7.49	0.076	
6/5/2003	47.32	0.078	7.52	0.076	
6/4/2003	45.22	0.075	7.5	0.076	
6/3/2003	51.75	0.082	7.87	0.076	
6/2/2003	47.29	0.077	7.59	0.076	
6/1/2003	53.3	0.086	7.66	0.076	
5/31/2003	44.82	0.075	7.36	0.076	
5/30/2003	42.88	0.071	7.47	0.075	
5/29/2003	40.8	0.069	7.37	0.076	
5/28/2003	47.97	0.078	7.6	0.076	
5/27/2003	44.67	0.074	7.48	0.076	
5/26/2003	46.39	0.075	7.64	0.076	
5/25/2003	47.84	0.078	7.6	0.076	
5/24/2003	48.96	0.08	7.55	0.076	
5/23/2003	47.49	0.077	7.63	0.076	
5/22/2003	49.06	0.079	7.75	0.076	
5/21/2003	45.35	0.074	7.54	0.076	
5/20/2003	33.84	0.059	7.1	0.076	
5/19/2003	38.23	0.062	7.51	0.076	
5/18/2003	45.01	0.072	7.65	0.076	
5/17/2003	49.59	0.078	7.81	0.076	

5/16/2003	45.39	0.074	7.6	0.076	
5/15/2003	48.53	0.079	7.62	0.076	
5/14/2003	49.88	0.08	7.72	0.076	
5/13/2003	46.15	0.077	7.45	0.075	
5/12/2003	46.25	0.08	7.04	0.076	
5/11/2003	46.7	0.079	7.38	0.076	
5/10/2003	45.51	0.075	7.5	0.076	
5/9/2003	51.69	0.085	7.58	0.076	
5/8/2003	50.17	0.083	7.55	0.076	
5/7/2003	47.08	0.078	7.43	0.076	
5/6/2003	39.64	0.068	7.24	0.076	
5/5/2003	41.75	0.072	7.18	0.077	
5/4/2003	48.69	0.08	7.51	0.077	
5/3/2003	50.38	0.082	7.6	0.077	
5/2/2003	44.78	0.076	7.31	0.077	
5/1/2003	41.15	0.07	7.35	0.077	
4/30/2003	47.71	0.079	7.57	0.077	
4/29/2003	46.47	0.075	7.71	0.077	
4/28/2003	39.92	0.068	7.26	0.077	
4/27/2003	47.05	0.078	7.49	0.078	
4/26/2003	46.09	0.078	7.33	0.078	
4/25/2003	45.23	0.077	7.29	0.078	
4/24/2003	49.17	0.08	7.68	0.078	
4/23/2003	49.34	0.08	7.64	0.078	
4/22/2003	46.71	0.079	7.35	0.078	
4/21/2003	39.34	0.068	7.18	0.078	
4/20/2003	37.44	0.064	7.31	0.078	
4/19/2003	41.75	0.067	7.69	0.078	
4/18/2003	44.41	0.073	7.61	0.078	
4/17/2003	48	0.078	7.64	0.079	
4/16/2003	41.63	0.071	7.29	0.079	
4/15/2003	39.14	0.066	7.36	0.079	
4/14/2003	46.88	0.078	7.5	0.079	
4/13/2003	50.89	0.084	7.56	0.079	
4/12/2003	45.51	0.078	7.2	0.079	
4/11/2003	51.74	0.088	7.32	0.079	
4/10/2003	55.5	0.09	7.63	0.079	
4/9/2003	54.23	0.085	7.91	0.078	
4/8/2003	51.37	0.078	8.19	0.078	
4/7/2003	50.73	0.076	8.29	0.078	
4/6/2003	53.03	0.081	8.12	0.078	
4/5/2003	50.61	0.079	7.88	0.078	
4/4/2003	50.17	0.081	7.62	0.078	
4/3/2003	49.78	0.082	7.53	0.078	
4/2/2003	46.25	0.077	7.43	0.078	
4/1/2003	45.43	0.074	7.57	0.078	
3/31/2003	51.52	0.08	8.01	0.078	
3/30/2003	52.59	0.085	7.68	0.078	
3/29/2003	48.39	0.082	7.3	0.078	

3/28/2003	43.38	0.073	7.29	0.078	
3/27/2003	48.32	0.08	7.51	0.078	
3/26/2003	48.36	0.081	7.37	0.078	
3/25/2003	43.1	0.072	7.36	0.078	
3/24/2003	46.18	0.076	7.54	0.079	
3/23/2003	48.41	0.08	7.48	0.079	
3/22/2003	47.93	0.079	7.44	0.079	
3/21/2003	44.29	0.076	7.21	0.079	
3/20/2003	39.67	0.069	7.15	0.078	
3/19/2003	50.45	0.081	7.76	0.079	
3/18/2003	49.33	0.083	7.4	0.078	
3/17/2003	45.36	0.076	7.39	0.078	
3/16/2003	47.8	0.079	7.53	0.078	
3/15/2003	48.13	0.074	8.07	0.078	
3/14/2003	53.27	0.079	8.39	0.078	
3/13/2003	50.46	0.075	8.38	0.078	
3/12/2003	48.15	0.073	8.13	0.079	
3/11/2003	51.55	0.075	8.54	0.079	
3/10/2003	53.53	0.08	8.25	0.079	
3/9/2003	53.43	0.085	7.85	0.080	
3/8/2003	47.86	0.077	7.66	0.079	
3/7/2003	55.52	0.084	8.22	0.079	
3/6/2003	48.04	0.079	7.49	0.080	
3/5/2003	42.12	0.069	6.46	0.079	
3/4/2003	48.33	0.076	7.88	0.080	
3/3/2003	54.88	0.086	7.97	0.079	
3/2/2003	49.12	0.08	7.6	0.079	
3/1/2003	49.02	0.08	7.61	0.079	
2/28/2003	50.32	0.082	7.63	0.079	
2/27/2003	51.38	0.082	7.74	0.079	
2/26/2003	52.35	0.078	8.34	0.079	
2/25/2003	53.59	0.084	7.9	0.080	
2/24/2003	51.37	0.084	7.58	0.080	
2/23/2003	47.8	0.082	7.25	0.080	
2/22/2003	45.34	0.078	7.22	0.080	
2/21/2003	45.11	0.074	7.56	0.080	
2/20/2003	47.76	0.077	7.68	0.081	
2/19/2003	46.12	0.073	7.87	0.081	
2/18/2003	48.85	0.074	8.14	0.082	
2/17/2003	49.82	0.074	8.32	0.082	
2/16/2003	54.71	0.078	8.73	0.083	
2/15/2003	53.08	0.077	8.51	0.083	
2/14/2003	52.26	0.076	8.48	0.084	
2/13/2003	54.04	0.08	8.4	0.084	
2/12/2003	53	0.082	8.05	0.085	
2/11/2003	53.57	0.083	8.05	0.085	
2/10/2003	50.94	0.085	7.45	0.085	
2/9/2003	51.11	0.083	7.66	0.086	
2/8/2003	52.4	0.083	7.88	0.086	

2/7/2003	52	0.081	7.93	0.086	
2/6/2003	51.72	0.079	8.12	0.087	
2/5/2003	50.6	0.086	7.28	0.087	
2/4/2003	40.73	0.077	6.5	N/A	Excluded NOx span > 10% low
2/3/2003	38.18	0.072	6.59	0.087	
2/2/2003	42.54	0.077	6.89	0.088	
2/1/2003	42.07	0.071	7.37	0.089	
1/31/2003	46.42	0.073	7.94	0.090	
1/30/2003	49.26	0.079	7.72	0.090	
1/29/2003	46.19	0.073	7.84	N/A	Excluded NOx span > 5% low 6th day
1/28/2003	37.36	0.056	8.22	N/A	Excluded NOx span > 10% low
1/27/2003	35.42	0.052	8.52	N/A	Excluded NOx span > 10% low
1/26/2003	34.5	0.055	7.87	N/A	Excluded NOx span > 10% low
1/25/2003	34.6	0.051	8.36	N/A	Excluded NOx span > 10% low
1/24/2003	35.2	0.055	7.95	N/A	Excluded NOx span > 10% low
1/23/2003	23.5	0.046	5.18	N/A	No zero/span performed
1/22/2003	54.3	0.091	7.28	0.091	
1/21/2003	55.97	0.085	8.23	0.091	
1/20/2003	53.43	0.084	7.88	0.091	
1/19/2003	53.82	0.084	8	0.092	
1/18/2003	53.72	0.085	7.87	0.092	
1/17/2003	54.27	0.087	7.75	0.092	
1/16/2003	53.4	0.088	7.54	0.093	
1/15/2003	54.09	0.09	7.49	0.093	
1/14/2003	52.54	0.087	7.5	0.093	
1/13/2003	52.73	0.086	7.55	0.093	
1/12/2003	57.36	0.098	7.29	0.093	
1/11/2003	40.78	0.073	5.27	0.093	
1/10/2003	55.78	0.095	7.28	0.093	
1/9/2003	52.74	0.094	6.99	0.093	
1/8/2003	52.48	0.092	7.09	0.093	
1/7/2003	55.35	0.093	7.36	0.093	
1/6/2003	55.89	0.096	7.22	0.093	
1/5/2003	55.28	0.094	7.34	0.093	
1/4/2003	55.85	0.092	7.57	0.093	
1/3/2003	55.08	0.091	7.56	0.092	
1/2/2003	55.43	0.094	7.36	0.091	
1/1/2003	54.36	0.094	7.16	0.091	

**Attachment B**  
**Boiler 10 NOx Daily Calibrations**

Date	NOx Parts per Million		CO2	
	Zero	Span	Zero	Span
6/30/2003	0.20	55.39	0.08	11.34
6/29/2003	0.19	54.62	0.10	11.20
6/28/2003	0.19	54.05	0.07	11.11
6/26/2003	0.20	54.40	0.10	11.13
6/25/2003	0.20	54.60	0.11	11.29
6/24/2003	0.21	53.87	0.13	11.30
6/23/2003	0.20	53.21	0.12	11.23
6/22/2003	0.19	54.32	0.10	11.25
6/21/2003	0.19	54.67	0.08	11.26
6/20/2003	0.19	56.31	0.05	11.23
6/19/2003	0.19	53.26	0.11	11.15
6/18/2003	0.19	52.38	0.11	11.22
6/17/2003	0.19	53.13	0.09	11.31
6/16/2003	0.19	54.15	0.07	11.33
6/15/2003	0.19	52.96	0.07	11.23
6/14/2003	0.19	54.21	0.05	11.07
6/13/2003	0.17	55.09	0.05	10.96
6/12/2003	0.19	53.08	0.07	11.08
6/11/2003	0.19	51.35	0.09	10.98
6/10/2003	0.18	53.96	0.05	11.13
6/9/2003	0.19	54.69	0.04	10.89
6/8/2003	0.18	51.34	0.07	10.99
6/7/2003	0.22	51.60	0.11	11.10
6/6/2003	0.17	59.31	0.21	11.33
6/5/2003	0.17	58.01	0.21	11.14
6/4/2003	0.16	55.92	0.22	11.15
6/3/2003	0.17	58.01	0.17	11.25
6/2/2003	0.16	58.44	0.18	11.31
6/1/2003	0.19	62.07	0.16	11.21
5/31/2003	0.17	53.98	0.22	10.99
5/30/2003	0.16	55.08	0.19	11.12
5/29/2003	0.14	55.06	0.18	11.01
5/28/2003	0.17	58.33	0.21	11.31
5/27/2003	0.15	57.01	0.20	11.35
5/26/2003	0.17	55.65	0.19	11.32
5/25/2003	0.13	58.23	0.15	11.22
5/24/2003	0.15	57.24	0.17	11.17
5/23/2003	0.16	56.70	0.17	11.36
5/22/2003	0.14	58.33	0.16	11.49
5/21/2003	0.13	58.51	0.15	11.50
5/20/2003	0.17	50.32	0.24	11.34
5/19/2003	0.16	53.87	0.22	11.51
5/18/2003	0.16	54.49	0.21	11.50
5/17/2003	0.15	54.74	0.18	11.45
5/16/2003	0.17	53.66	0.19	11.28



5/15/2003	0.15	53.19	0.18	11.27
5/14/2003	0.18	56.31	0.16	11.24
5/13/2003	0.10	56.28	0.18	11.09
5/10/2003	0.12	50.85	0.13	11.10
5/9/2003	0.13	54.63	0.07	11.10
5/8/2003	0.18	56.23	0.07	11.10
5/7/2003	0.00	47.34	0.00	10.93
5/6/2003	0.00	48.75	0.00	10.72
5/5/2003	0.00	47.15	0.00	10.84
5/4/2003	0.00	51.75	0.00	11.17
5/3/2003	0.00	53.00	0.00	11.11
5/2/2003	0.00	49.95	0.00	10.95
5/1/2003	0.02	48.17	0.08	10.94
4/30/2003	0.00	53.30	0.14	11.68
4/29/2003	0.01	48.50	0.00	10.89
4/28/2003	0.00	47.15	0.00	10.81
4/27/2003	0.00	52.43	0.00	10.98
4/26/2003	0.00	49.98	0.00	10.77
4/25/2003	0.00	49.57	0.00	10.87
4/24/2003	0.00	53.63	0.00	11.20
4/23/2003	0.00	53.26	0.00	11.22
4/22/2003	0.00	50.08	0.00	10.76
4/21/2003	0.00	46.06	0.00	10.75
4/20/2003	0.00	46.59	0.00	10.99
4/19/2003	0.00	49.88	0.05	11.38
4/18/2003	0.00	50.94	0.00	11.11
4/17/2003	0.00	51.76	0.00	11.09
4/16/2003	0.00	45.33	0.00	10.75
4/15/2003	0.00	46.92	0.00	10.91
4/14/2003	0.00	54.11	0.00	11.07
4/13/2003	0.00	55.77	0.00	11.09
4/12/2003	0.00	52.32	0.00	10.63
4/11/2003	0.00	54.41	0.00	10.87
4/10/2003	0.00	55.60	0.00	11.18
4/9/2003	0.00	56.43	0.30	11.68
4/8/2003	0.00	56.36	0.70	12.03
4/7/2003	0.00	56.51	0.46	11.79
4/6/2003	0.00	58.67	0.31	11.78
4/5/2003	0.00	55.44	0.31	11.18
4/4/2003	0.00	56.31	0.12	11.21
4/3/2003	0.00	53.89	0.00	11.05
4/2/2003	0.00	53.76	0.00	10.86
4/1/2003	0.00	55.26	0.26	11.24
3/31/2003	0.00	57.35	0.34	11.53
3/30/2003	0.00	57.91	0.00	11.03
3/29/2003	0.00	51.83	0.00	10.70
3/28/2003	0.00	52.84	0.00	10.96
3/27/2003	0.00	55.79	0.00	11.00
3/26/2003	0.00	53.87	0.00	10.87

3/25/2003	0.00	51.95	0.00	10.98
3/24/2003	0.00	56.35	0.01	11.17
3/23/2003	0.02	56.43	0.00	11.11
3/22/2003	0.01	55.94	0.10	11.09
3/21/2003	0.02	53.24	0.00	10.64
3/20/2003	0.01	54.38	0.00	10.95
3/19/2003	0.01	56.80	0.15	11.33
3/18/2003	0.02	54.05	0.00	10.88
3/17/2003	0.01	55.10	0.00	10.90
3/16/2003	0.02	53.58	0.00	11.08
3/15/2003	0.02	55.95	0.46	11.66
3/14/2003	0.03	59.15	0.45	11.88
3/13/2003	0.03	54.06	0.56	11.81
3/12/2003	0.02	51.01	0.61	11.70
3/11/2003	0.02	56.67	0.89	12.11
3/10/2003	0.02	57.62	0.41	11.65
3/9/2003	0.02	57.50	0.00	11.11
3/8/2003	0.03	52.47	0.28	11.45
3/7/2003	0.04	57.34	0.26	11.47
3/6/2003	0.11	54.72	0.00	11.04
3/5/2003	2.64	49.36	0.01	10.41
3/4/2003	0.16	53.09	0.36	11.27
3/3/2003	0.15	56.54	0.02	11.16
3/2/2003	0.21	49.33	0.11	10.92
3/1/2003	0.19	52.95	0.00	11.07
2/28/2003	0.19	54.23	0.00	10.93
2/27/2003	0.17	54.94	0.03	11.18
2/26/2003	0.17	55.59	0.54	11.78
2/25/2003	0.16	55.49	0.06	11.40
2/24/2003	0.20	53.44	0.00	10.95
2/23/2003	0.19	49.59	0.00	10.31
2/22/2003	0.20	48.75	0.00	10.74
2/21/2003	0.20	50.08	0.00	11.01
2/20/2003	0.20	52.09	0.00	11.14
2/19/2003	0.20	50.88	0.60	11.51
2/18/2003	0.20	51.76	0.57	11.59
2/17/2003	0.19	53.88	0.45	11.61
2/16/2003	0.15	56.03	0.73	12.16
2/15/2003	0.19	53.67	0.61	11.81
2/14/2003	0.16	54.39	0.78	11.88
2/13/2003	0.15	55.33	0.45	11.46
2/12/2003	0.19	53.65	0.51	11.42
2/11/2003	0.15	55.57	0.28	11.23
2/10/2003	0.20	52.23	0.00	10.70
2/9/2003	0.20	51.72	0.11	11.08
2/8/2003	0.19	54.10	0.16	11.16
2/7/2003	0.21	53.13	0.38	11.44
2/6/2003	0.24	54.15	0.33	11.48
2/5/2003	0.14	51.02	0.00	10.35

2/4/2003	0.19	41.96	0.00	9.79
2/3/2003	0.20	46.08	0.00	10.24
2/2/2003	0.20	46.01	0.00	10.37
2/1/2003	0.21	46.65	0.03	11.06
1/31/2003	0.20	50.30	0.25	11.49
1/30/2003	0.21	51.05	0.00	10.86
1/29/2003	0.29	46.74	0.32	11.53
1/28/2003	0.00	33.64	0.70	12.09
1/27/2003	0.00	33.69	0.18	11.81
1/26/2003	0.00	34.65	0.00	11.30
1/25/2003	0.00	34.27	0.48	11.91
1/24/2003	0.00	34.67	0.00	11.18
1/23/2003	N/A	N/A	N/A	N/A
1/22/2003	0.11	53.78	0.00	11.18
1/21/2003	0.17	53.68	0.18	11.50
1/20/2003	0.17	53.03	0.21	11.30
1/19/2003	0.16	53.37	0.20	11.34
1/18/2003	0.17	53.81	0.02	11.30
1/17/2003	0.16	53.37	0.00	11.01
1/16/2003	0.16	54.17	0.00	11.03
1/15/2003	0.15	53.75	0.00	10.82
1/14/2003	0.16	54.08	0.00	10.95
1/13/2003	0.17	53.59	0.00	10.76
1/12/2003	0.16	54.25	0.00	10.67
1/11/2003	0.53	53.74	0.00	10.58
1/10/2003	0.17	54.12	-0.02	10.41
1/9/2003	0.21	52.89	0.00	10.13
1/8/2003	0.19	53.65	0.00	10.39
1/7/2003	0.16	54.23	0.00	10.86
1/6/2003	0.19	55.05	0.00	10.57
1/5/2003	0.18	55.12	0.00	10.81
1/4/2003	0.18	55.26	0.00	10.84
1/3/2003	0.19	55.02	0.00	11.08
1/2/2003	0.17	55.44	0.00	10.61
1/1/2003	0.21	55.55	0.00	10.50

# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## AIR QUALITY DIVISION

### Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx

Reporting period: Jan - June 2003

Diluent: O2

Company: Cargill Salt

Unit Description:

Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmbtu 30 day avg.

Total Source Operation Time

4,244 hours

Monitor Manufacturer, Model No., & Serial No.:

NOx TECO Model #42C, S/N #873662-374

CO2 CAI Model ZRH S/N A1J3876T

#### Emission Data Summary

1 Duration of Excess Emissions (EE) in reporting period due to:

a.	Startup/Shutdown	0
b.	Soot Blowing	0
c.	Control Equipment Problems	0
d.	Process Problems	0
e.	Other Known Causes	0
f.	Unknown Causes	0

2 Total Durations of EE's

3 Total Duration of EE's/Total Source Operation Time X 100 0 %

#### CEM System Summary

1 CEM system downtime in reporting period due to:

a.	Monitor Equipment Malfunctions	0
b.	Non-Monitor Equipment Malfunctions	192
c.	Quality Assurance Calibrations (Excess)	0
d.	Other Known Causes	0
e.	Unknown Causes	0

2 Total CEM System Downtime 192

3 Total CEM System Downtime/Total Source Operation Time X 100 4.5%

Comments:

I certify that the information contained in this report is true, accurate and complete.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_





**RECEIVED**

MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

July 29, 2003.

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

Re: Boiler No. 10 Semi-annual Emissions Report for the 1st half of 2003

Dear Ms. Seidel:

This Semiannual Emissions Report is being submitted in accordance with the reporting requirements in Permit No. 184-01A Special Conditions 1.11 (h). Boiler No. 10 was operated using Natural Gas only during the entire reporting period. No excess emissions occurred during the semiannual reporting period of the first half of 2003.

The average NO<sub>x</sub> and CO<sub>2</sub> emission rates (lb/MM Btu heat input) and the 30-day average NO<sub>x</sub> emission rates (lb/MM Btu heat input) are summarized in Attachment A.

There was zero operating days when the 30-day average NO<sub>x</sub> emission rate exceeded the limit under 60.44b.

Pollution data was obtained throughout the reporting period.

Emission data excluded from the calculations of average emission rates and reasons for excluding data:

There were 8 days excluded during the test period. January 23 through January 29 and February 4. These days were the first days of cold weather to adversely affect our data. It took until February 5, 2003 to identify the problem and rectify it.

"F" factor is 1,040 dscf / MMBtu.

The pollutant concentrations did not exceed full span of the CEMS during the quarter.

No modifications were made to the CEM that could affect the ability of the CEMS to comply with PS 2 or 3.

Attachment B contains the daily CEMS drift test.

Attachment C contains the NO<sub>x</sub> / CO<sub>2</sub> Span gas Certificate of Analysis.

If you have any questions please call me at 810-326-2841.

Sincerely,



Wade D. Richards  
Powerhouse Superintendent

cc: Dan Taylor  
Don Chutas  
Gene Chauffe  
Janice Richards  
Tom Gasloli  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Boiler No. 10 NO<sub>x</sub> Daily Averages, Emission Data, 30-Day Average NO<sub>x</sub>  
Boiler No. 10 Daily Calibration (zero / span)  
Certificate of Analysis / EPA Protocol Gas

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx Reporting period: Fourth quarter, 2002  
Diluent: O2

Company: Cargill Salt Unit Description: Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmbtu 30 day avg. Total Source Operation Time 4,244 hours

Monitor Manufacturer, Model No., & Serial No.: NOx TECO Model #42C, S/N #873662-374  
CO2 CAI Model ZRH S/N A1J3876T

**Emission Data Summary**

- 1 Duration of Excess Emissions (EE) in reporting period due to:
- |    |                            |          |
|----|----------------------------|----------|
| a. | Startup/Shutdown           | <u>0</u> |
| b. | Soot Blowing               | <u>0</u> |
| c. | Control Equipment Problems | <u>0</u> |
| d. | Process Problems           | <u>0</u> |
| e. | Other Known Causes         | <u>0</u> |
| f. | Unknown Causes             | <u>0</u> |
- 2 Total Durations of EE's
- 3 Total Duration of EE's/Total Source Operation Time X 100 0 %

**CEM System Summary**

- 1 CEM system downtime in reporting period due to:
- |    |   |          |
|----|---|----------|
| a. | Monitor Equipment Malfunctions          | <u>0</u> |
| b. | Non-Monitor Equipment Malfunctions      | <u>0</u> |
| c. | Quality Assurance Calibrations (Excess) | <u>0</u> |
| d. | Other Known Causes                      | <u>0</u> |
| e. | Unknown Causes                          | <u>0</u> |
- 2 Total CEM System Downtime 0
- 3 Total CEM System Downtime/Total Source Operation Time X 100 0 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: 

Date: 7/29/03



**Attachment A**  
**Boiler 10 Emissions Data 30-day average NOx**

Date	NOx Parts per Million	NOx Pounds per Mbtu	CO2	30-Day Average	Comments
6/30/2003	47.3	0.077	7.57	0.075	
6/29/2003	44.95	0.074	7.47	0.075	
6/28/2003	43.93	0.074	7.35	0.074	
6/27/2003	41.97	0.072	7.27	0.074	
6/26/2003	42.94	0.072	7.4	0.074	
6/25/2003	44.32	0.073	7.54	0.075	
6/24/2003	45.42	0.074	7.58	0.075	
6/23/2003	45.44	0.075	7.52	0.075	
6/22/2003	47.52	0.078	7.56	0.075	
6/21/2003	48.17	0.079	7.59	0.075	
6/20/2003	48.54	0.079	7.58	0.075	
6/19/2003	47.6	0.078	7.54	0.075	
6/18/2003	42.6	0.071	7.47	0.074	
6/17/2003	44.15	0.072	7.55	0.074	
6/16/2003	46.41	0.076	7.57	0.074	
6/15/2003	42.4	0.07	7.45	0.074	
6/14/2003	43.44	0.072	7.47	0.074	
6/13/2003	41.79	0.071	7.3	0.074	
6/12/2003	40.72	0.07	7.2	0.074	
6/11/2003	41.38	0.069	7.41	0.075	
6/10/2003	44.11	0.074	7.42	0.075	
6/9/2003	45.59	0.077	7.39	0.075	
6/8/2003	40.52	0.069	7.29	0.075	
6/7/2003	40.55	0.068	7.37	0.076	
6/6/2003	45.81	0.075	7.49	0.076	
6/5/2003	47.32	0.078	7.52	0.076	
6/4/2003	45.22	0.075	7.5	0.076	
6/3/2003	51.75	0.082	7.87	0.076	
6/2/2003	47.29	0.077	7.59	0.076	
6/1/2003	53.3	0.086	7.66	0.076	
5/31/2003	44.82	0.075	7.36	0.076	
5/30/2003	42.88	0.071	7.47	0.075	
5/29/2003	40.8	0.069	7.37	0.076	
5/28/2003	47.97	0.078	7.6	0.076	
5/27/2003	44.67	0.074	7.48	0.076	
5/26/2003	46.39	0.075	7.64	0.076	
5/25/2003	47.84	0.078	7.6	0.076	
5/24/2003	48.96	0.08	7.55	0.076	
5/23/2003	47.49	0.077	7.63	0.076	
5/22/2003	49.06	0.079	7.75	0.076	
5/21/2003	45.35	0.074	7.54	0.076	
5/20/2003	33.84	0.059	7.1	0.076	
5/19/2003	38.23	0.062	7.51	0.076	
5/18/2003	45.01	0.072	7.65	0.076	
5/17/2003	49.59	0.078	7.81	0.076	

5/16/2003	45.39	0.074	7.6	0.076	
5/15/2003	48.53	0.079	7.62	0.076	
5/14/2003	49.88	0.08	7.72	0.076	
5/13/2003	46.15	0.077	7.45	0.075	
5/12/2003	46.25	0.08	7.04	0.076	
5/11/2003	46.7	0.079	7.38	0.076	
5/10/2003	45.51	0.075	7.5	0.076	
5/9/2003	51.69	0.085	7.58	0.076	
5/8/2003	50.17	0.083	7.55	0.076	
5/7/2003	47.08	0.078	7.43	0.076	
5/6/2003	39.64	0.068	7.24	0.076	
5/5/2003	41.75	0.072	7.18	0.077	
5/4/2003	48.69	0.08	7.51	0.077	
5/3/2003	50.38	0.082	7.6	0.077	
5/2/2003	44.78	0.076	7.31	0.077	
5/1/2003	41.15	0.07	7.35	0.077	
4/30/2003	47.71	0.079	7.57	0.077	
4/29/2003	46.47	0.075	7.71	0.077	
4/28/2003	39.92	0.068	7.26	0.077	
4/27/2003	47.05	0.078	7.49	0.078	
4/26/2003	46.09	0.078	7.33	0.078	
4/25/2003	45.23	0.077	7.29	0.078	
4/24/2003	49.17	0.08	7.68	0.078	
4/23/2003	49.34	0.08	7.64	0.078	
4/22/2003	46.71	0.079	7.35	0.078	
4/21/2003	39.34	0.068	7.18	0.078	
4/20/2003	37.44	0.064	7.31	0.078	
4/19/2003	41.75	0.067	7.69	0.078	
4/18/2003	44.41	0.073	7.61	0.078	
4/17/2003	48	0.078	7.64	0.079	
4/16/2003	41.63	0.071	7.29	0.079	
4/15/2003	39.14	0.066	7.36	0.079	
4/14/2003	46.88	0.078	7.5	0.079	
4/13/2003	50.89	0.084	7.56	0.079	
4/12/2003	45.51	0.078	7.2	0.079	
4/11/2003	51.74	0.088	7.32	0.079	
4/10/2003	55.5	0.09	7.63	0.079	
4/9/2003	54.23	0.085	7.91	0.078	
4/8/2003	51.37	0.078	8.19	0.078	
4/7/2003	50.73	0.076	8.29	0.078	
4/6/2003	53.03	0.081	8.12	0.078	
4/5/2003	50.61	0.079	7.88	0.078	
4/4/2003	50.17	0.081	7.62	0.078	
4/3/2003	49.78	0.082	7.53	0.078	
4/2/2003	46.25	0.077	7.43	0.078	
4/1/2003	45.43	0.074	7.57	0.078	
3/31/2003	51.52	0.08	8.01	0.078	
3/30/2003	52.59	0.085	7.68	0.078	
3/29/2003	48.39	0.082	7.3	0.078	

3/28/2003	43.38	0.073	7.29	0.078	
3/27/2003	48.32	0.08	7.51	0.078	
3/26/2003	48.36	0.081	7.37	0.078	
3/25/2003	43.1	0.072	7.36	0.078	
3/24/2003	46.18	0.076	7.54	0.079	
3/23/2003	48.41	0.08	7.48	0.079	
3/22/2003	47.93	0.079	7.44	0.079	
3/21/2003	44.29	0.076	7.21	0.079	
3/20/2003	39.67	0.069	7.15	0.078	
3/19/2003	50.45	0.081	7.76	0.079	
3/18/2003	49.33	0.083	7.4	0.078	
3/17/2003	45.36	0.076	7.39	0.078	
3/16/2003	47.8	0.079	7.53	0.078	
3/15/2003	48.13	0.074	8.07	0.078	
3/14/2003	53.27	0.079	8.39	0.078	
3/13/2003	50.46	0.075	8.38	0.078	
3/12/2003	48.15	0.073	8.13	0.079	
3/11/2003	51.55	0.075	8.54	0.079	
3/10/2003	53.53	0.08	8.25	0.079	
3/9/2003	53.43	0.085	7.85	0.080	
3/8/2003	47.86	0.077	7.66	0.079	
3/7/2003	55.52	0.084	8.22	0.079	
3/6/2003	48.04	0.079	7.49	0.080	
3/5/2003	42.12	0.069	6.46	0.079	
3/4/2003	48.33	0.076	7.88	0.080	
3/3/2003	54.88	0.086	7.97	0.079	
3/2/2003	49.12	0.08	7.6	0.079	
3/1/2003	49.02	0.08	7.61	0.079	
2/28/2003	50.32	0.082	7.63	0.079	
2/27/2003	51.38	0.082	7.74	0.079	
2/26/2003	52.35	0.078	8.34	0.079	
2/25/2003	53.59	0.084	7.9	0.080	
2/24/2003	51.37	0.084	7.58	0.080	
2/23/2003	47.8	0.082	7.25	0.080	
2/22/2003	45.34	0.078	7.22	0.080	
2/21/2003	45.11	0.074	7.56	0.080	
2/20/2003	47.76	0.077	7.68	0.081	
2/19/2003	46.12	0.073	7.87	0.081	
2/18/2003	48.85	0.074	8.14	0.082	
2/17/2003	49.82	0.074	8.32	0.082	
2/16/2003	54.71	0.078	8.73	0.083	
2/15/2003	53.08	0.077	8.51	0.083	
2/14/2003	52.26	0.076	8.48	0.084	
2/13/2003	54.04	0.08	8.4	0.084	
2/12/2003	53	0.082	8.05	0.085	
2/11/2003	53.57	0.083	8.05	0.085	
2/10/2003	50.94	0.085	7.45	0.085	
2/9/2003	51.11	0.083	7.66	0.086	
2/8/2003	52.4	0.083	7.88	0.086	

2/7/2003	52	0.081	7.93	0.086	
2/6/2003	51.72	0.079	8.12	0.087	
2/5/2003	50.6	0.086	7.28	0.087	
2/4/2003	40.73	0.077	6.5	N/A	Excluded NOx span > 10% low
2/3/2003	38.18	0.072	6.59	0.087	
2/2/2003	42.54	0.077	6.89	0.088	
2/1/2003	42.07	0.071	7.37	0.089	
1/31/2003	46.42	0.073	7.94	0.090	
1/30/2003	49.26	0.079	7.72	0.090	
1/29/2003	46.19	0.073	7.84	N/A	Excluded NOx span > 5% low 6th day
1/28/2003	37.36	0.056	8.22	N/A	Excluded NOx span > 10% low
1/27/2003	35.42	0.052	8.52	N/A	Excluded NOx span > 10% low
1/26/2003	34.5	0.055	7.87	N/A	Excluded NOx span > 10% low
1/25/2003	34.6	0.051	8.36	N/A	Excluded NOx span > 10% low
1/24/2003	35.2	0.055	7.95	N/A	Excluded NOx span > 10% low
1/23/2003	23.5	0.046	5.18	N/A	No zero/span performed
1/22/2003	54.3	0.091	7.28	0.091	
1/21/2003	55.97	0.085	8.23	0.091	
1/20/2003	53.43	0.084	7.88	0.091	
1/19/2003	53.82	0.084	8	0.092	
1/18/2003	53.72	0.085	7.87	0.092	
1/17/2003	54.27	0.087	7.75	0.092	
1/16/2003	53.4	0.088	7.54	0.093	
1/15/2003	54.09	0.09	7.49	0.093	
1/14/2003	52.54	0.087	7.5	0.093	
1/13/2003	52.73	0.086	7.55	0.093	
1/12/2003	57.36	0.098	7.29	0.093	
1/11/2003	40.78	0.073	5.27	0.093	
1/10/2003	55.78	0.095	7.28	0.093	
1/9/2003	52.74	0.094	6.99	0.093	
1/8/2003	52.48	0.092	7.09	0.093	
1/7/2003	55.35	0.093	7.36	0.093	
1/6/2003	55.89	0.096	7.22	0.093	
1/5/2003	55.28	0.094	7.34	0.093	
1/4/2003	55.85	0.092	7.57	0.093	
1/3/2003	55.08	0.091	7.56	0.092	
1/2/2003	55.43	0.094	7.36	0.091	
1/1/2003	54.36	0.094	7.16	0.091	

**Attachment B**  
**Boiler 10 NOx Daily Calibrations**

<b>Date</b>	<b>NOx Parts per Million</b>		<b>CO2</b>	
	<b>Zero</b>	<b>Span</b>	<b>Zero</b>	<b>Span</b>
6/30/2003	0.20	55.39	0.08	11.34
6/29/2003	0.19	54.62	0.10	11.20
6/28/2003	0.19	54.05	0.07	11.11
6/26/2003	0.20	54.40	0.10	11.13
6/25/2003	0.20	54.60	0.11	11.29
6/24/2003	0.21	53.87	0.13	11.30
6/23/2003	0.20	53.21	0.12	11.23
6/22/2003	0.19	54.32	0.10	11.25
6/21/2003	0.19	54.67	0.08	11.26
6/20/2003	0.19	56.31	0.05	11.23
6/19/2003	0.19	53.26	0.11	11.15
6/18/2003	0.19	52.38	0.11	11.22
6/17/2003	0.19	53.13	0.09	11.31
6/16/2003	0.19	54.15	0.07	11.33
6/15/2003	0.19	52.96	0.07	11.23
6/14/2003	0.19	54.21	0.05	11.07
6/13/2003	0.17	55.09	0.05	10.96
6/12/2003	0.19	53.08	0.07	11.08
6/11/2003	0.19	51.35	0.09	10.98
6/10/2003	0.18	53.96	0.05	11.13
6/9/2003	0.19	54.69	0.04	10.89
6/8/2003	0.18	51.34	0.07	10.99
6/7/2003	0.22	51.60	0.11	11.10
6/6/2003	0.17	59.31	0.21	11.33
6/5/2003	0.17	58.01	0.21	11.14
6/4/2003	0.16	55.92	0.22	11.15
6/3/2003	0.17	58.01	0.17	11.25
6/2/2003	0.16	58.44	0.18	11.31
6/1/2003	0.19	62.07	0.16	11.21
5/31/2003	0.17	53.98	0.22	10.99
5/30/2003	0.16	55.08	0.19	11.12
5/29/2003	0.14	55.06	0.18	11.01
5/28/2003	0.17	58.33	0.21	11.31
5/27/2003	0.15	57.01	0.20	11.35
5/26/2003	0.17	55.65	0.19	11.32
5/25/2003	0.13	58.23	0.15	11.22
5/24/2003	0.15	57.24	0.17	11.17
5/23/2003	0.16	56.70	0.17	11.36
5/22/2003	0.14	58.33	0.16	11.49
5/21/2003	0.13	58.51	0.15	11.50
5/20/2003	0.17	50.32	0.24	11.34
5/19/2003	0.16	53.87	0.22	11.51
5/18/2003	0.16	54.49	0.21	11.50
5/17/2003	0.15	54.74	0.18	11.45
5/16/2003	0.17	53.66	0.19	11.28

5/15/2003	0.15	53.19	0.18	11.27
5/14/2003	0.18	56.31	0.16	11.24
5/13/2003	0.10	56.28	0.18	11.09
5/10/2003	0.12	50.85	0.13	11.10
5/9/2003	0.13	54.63	0.07	11.10
5/8/2003	0.18	56.23	0.07	11.10
5/7/2003	0.00	47.34	0.00	10.93
5/6/2003	0.00	48.75	0.00	10.72
5/5/2003	0.00	47.15	0.00	10.84
5/4/2003	0.00	51.75	0.00	11.17
5/3/2003	0.00	53.00	0.00	11.11
5/2/2003	0.00	49.95	0.00	10.95
5/1/2003	0.02	48.17	0.08	10.94
4/30/2003	0.00	53.30	0.14	11.68
4/29/2003	0.01	48.50	0.00	10.89
4/28/2003	0.00	47.15	0.00	10.81
4/27/2003	0.00	52.43	0.00	10.98
4/26/2003	0.00	49.98	0.00	10.77
4/25/2003	0.00	49.57	0.00	10.87
4/24/2003	0.00	53.63	0.00	11.20
4/23/2003	0.00	53.26	0.00	11.22
4/22/2003	0.00	50.08	0.00	10.76
4/21/2003	0.00	46.06	0.00	10.75
4/20/2003	0.00	46.59	0.00	10.99
4/19/2003	0.00	49.88	0.05	11.38
4/18/2003	0.00	50.94	0.00	11.11
4/17/2003	0.00	51.76	0.00	11.09
4/16/2003	0.00	45.33	0.00	10.75
4/15/2003	0.00	46.92	0.00	10.91
4/14/2003	0.00	54.11	0.00	11.07
4/13/2003	0.00	55.77	0.00	11.09
4/12/2003	0.00	52.32	0.00	10.63
4/11/2003	0.00	54.41	0.00	10.87
4/10/2003	0.00	55.60	0.00	11.18
4/9/2003	0.00	56.43	0.30	11.68
4/8/2003	0.00	56.36	0.70	12.03
4/7/2003	0.00	56.51	0.46	11.79
4/6/2003	0.00	58.67	0.31	11.78
4/5/2003	0.00	55.44	0.31	11.18
4/4/2003	0.00	56.31	0.12	11.21
4/3/2003	0.00	53.89	0.00	11.05
4/2/2003	0.00	53.76	0.00	10.86
4/1/2003	0.00	55.26	0.26	11.24
3/31/2003	0.00	57.35	0.34	11.53
3/30/2003	0.00	57.91	0.00	11.03
3/29/2003	0.00	51.83	0.00	10.70
3/28/2003	0.00	52.84	0.00	10.96
3/27/2003	0.00	55.79	0.00	11.00
3/26/2003	0.00	53.87	0.00	10.87

3/25/2003	0.00	51.95	0.00	10.98
3/24/2003	0.00	56.35	0.01	11.17
3/23/2003	0.02	56.43	0.00	11.11
3/22/2003	0.01	55.94	0.10	11.09
3/21/2003	0.02	53.24	0.00	10.64
3/20/2003	0.01	54.38	0.00	10.95
3/19/2003	0.01	56.80	0.15	11.33
3/18/2003	0.02	54.05	0.00	10.88
3/17/2003	0.01	55.10	0.00	10.90
3/16/2003	0.02	53.58	0.00	11.08
3/15/2003	0.02	55.95	0.46	11.66
3/14/2003	0.03	59.15	0.45	11.88
3/13/2003	0.03	54.06	0.56	11.81
3/12/2003	0.02	51.01	0.61	11.70
3/11/2003	0.02	56.67	0.89	12.11
3/10/2003	0.02	57.62	0.41	11.65
3/9/2003	0.02	57.50	0.00	11.11
3/8/2003	0.03	52.47	0.28	11.45
3/7/2003	0.04	57.34	0.26	11.47
3/6/2003	0.11	54.72	0.00	11.04
3/5/2003	2.64	49.36	0.01	10.41
3/4/2003	0.16	53.09	0.36	11.27
3/3/2003	0.15	56.54	0.02	11.16
3/2/2003	0.21	49.33	0.11	10.92
3/1/2003	0.19	52.95	0.00	11.07
2/28/2003	0.19	54.23	0.00	10.93
2/27/2003	0.17	54.94	0.03	11.18
2/26/2003	0.17	55.59	0.54	11.78
2/25/2003	0.16	55.49	0.06	11.40
2/24/2003	0.20	53.44	0.00	10.95
2/23/2003	0.19	49.59	0.00	10.31
2/22/2003	0.20	48.75	0.00	10.74
2/21/2003	0.20	50.08	0.00	11.01
2/20/2003	0.20	52.09	0.00	11.14
2/19/2003	0.20	50.88	0.60	11.51
2/18/2003	0.20	51.76	0.57	11.59
2/17/2003	0.19	53.88	0.45	11.61
2/16/2003	0.15	56.03	0.73	12.16
2/15/2003	0.19	53.67	0.61	11.81
2/14/2003	0.16	54.39	0.78	11.88
2/13/2003	0.15	55.33	0.45	11.46
2/12/2003	0.19	53.65	0.51	11.42
2/11/2003	0.15	55.57	0.28	11.23
2/10/2003	0.20	52.23	0.00	10.70
2/9/2003	0.20	51.72	0.11	11.08
2/8/2003	0.19	54.10	0.16	11.16
2/7/2003	0.21	53.13	0.38	11.44
2/6/2003	0.24	54.15	0.33	11.48
2/5/2003	0.14	51.02	0.00	10.35

2/4/2003	0.19	41.96	0.00	9.79
2/3/2003	0.20	46.08	0.00	10.24
2/2/2003	0.20	46.01	0.00	10.37
2/1/2003	0.21	46.65	0.03	11.06
1/31/2003	0.20	50.30	0.25	11.49
1/30/2003	0.21	51.05	0.00	10.86
1/29/2003	0.29	46.74	0.32	11.53
1/28/2003	0.00	33.64	0.70	12.09
1/27/2003	0.00	33.69	0.18	11.81
1/26/2003	0.00	34.65	0.00	11.30
1/25/2003	0.00	34.27	0.48	11.91
1/24/2003	0.00	34.67	0.00	11.18
1/23/2003	N/A	N/A	N/A	N/A
1/22/2003	0.11	53.78	0.00	11.18
1/21/2003	0.17	53.68	0.18	11.50
1/20/2003	0.17	53.03	0.21	11.30
1/19/2003	0.16	53.37	0.20	11.34
1/18/2003	0.17	53.81	0.02	11.30
1/17/2003	0.16	53.37	0.00	11.01
1/16/2003	0.16	54.17	0.00	11.03
1/15/2003	0.15	53.75	0.00	10.82
1/14/2003	0.16	54.08	0.00	10.95
1/13/2003	0.17	53.59	0.00	10.76
1/12/2003	0.16	54.25	0.00	10.67
1/11/2003	0.53	53.74	0.00	10.58
1/10/2003	0.17	54.12	-0.02	10.41
1/9/2003	0.21	52.89	0.00	10.13
1/8/2003	0.19	53.65	0.00	10.39
1/7/2003	0.16	54.23	0.00	10.86
1/6/2003	0.19	55.05	0.00	10.57
1/5/2003	0.18	55.12	0.00	10.81
1/4/2003	0.18	55.26	0.00	10.84
1/3/2003	0.19	55.02	0.00	11.08
1/2/2003	0.17	55.44	0.00	10.61
1/1/2003	0.21	55.55	0.00	10.50



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Tel: (610) 691-2474  
Fax: (610) 758-9103

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR-DETROIT

P.O NUMBER 092295-00

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 112.4PPM GMIS vs.	1684b	CAL013252	97.8 PPM
CARBON DIOXIDE 14.07% GMIS vs.	NTRM 82745X	SA17082	17.89%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	NITRIC OXIDE 112.4PPM GMIS	ANALYZER MAKE-MODEL-S/N	TECO MODEL 42C 42CHL-55533-304
ANALYTICAL PRINCIPLE	CHEMILUMINESCENCE	LAST CALIBRATION DATE	02/28/02
FIRST ANALYSIS DATE	02/26/02	SECOND ANALYSIS DATE	03/05/02
Z 0	R 112.4	C 53.6	CONC. 53.7
R 112.4	Z 0	C 53.6	CONC. 53.7
Z 0	C 53.6	R 112.4	Z 0
U/M	PPM	MEAN TEST ASSAY	53.8
2. COMPONENT	CARBON DIOXIDE 14.07% GMIS	ANALYZER MAKE-MODEL-S/N	SIEMENS ULTRAMAT SE SN: D2-412
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	01/31/02
FIRST ANALYSIS DATE	02/26/02	SECOND ANALYSIS DATE	
Z 0	R 14.02	C 11.06	CONC. 11.10
R 14.02	Z 0	C 11.06	CONC. 11.10
Z 0	C 11.06	R 14.02	CONC. 11.10
U/M	%	MEAN TEST ASSAY	11.10

VALUES NOT VALID BELOW 150 PSIG: BALANCE: NITROGEN

UNCERTAINTIES: NO: ±0.4 PPM CO2: ±0.05%

THIS CYLINDER NO. SA19193  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 03/05/02  
EXPIRATION DATE 03/05/05 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 54.1 PPM  
CARBON DIOXIDE 11.10%  
NITROGEN BALANCE  
NO<sub>x</sub> (FOR REFERENCE ONLY) 54.1 PPM

ANALYZED BY

JOE HOSBATH

CERTIFIED BY

KEVIN BRADY

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## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR: DETROIT

P.O NUMBER 847359-00

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 75.6 PPM GMIS VS.	1684B	CAL-013591	97.8 PPM
18.19% CARBON DIOXIDE GMIS VS.	2745	CAL-010471	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	NITRIC OXIDE 75.6 PPM GMIS VS.	ANALYZER MAKE-MODEL-S/N	TECO MODEL 42C 42CHL-55533-304
ANALYTICAL PRINCIPLE	CHEMILUMINESCENCE	LAST CALIBRATION DATE	04/30/02
FIRST ANALYSIS DATE	05/14/02	SECOND ANALYSIS DATE	05/21/02
Z 0	R 75.6	C 54.3	CONC. 54.3
R 75.7	Z 0	C 54.4	CONC. 54.4
Z 0	C 54.2	R 75.6	CONC. 54.2
U/M PPM	MEAN TEST ASSAY	54.3	U/M PPM
2. COMPONENT	18.19% CARBON DIOXIDE GMIS VS.	ANALYZER MAKE-MODEL-S/N	SIEMENS ULTRAMAT 5E SN: D2-412
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	04/30/02
FIRST ANALYSIS DATE	05/14/02	SECOND ANALYSIS DATE	
Z 0	R 18.16	C 11.12	CONC. 11.11
R 18.16	Z 0	C 11.12	CONC. 11.11
Z 0	C 11.12	R 18.16	CONC. 11.11
U/M %	MEAN TEST ASSAY	11.11	U/M %

VALUES NOT VALID BELOW 150 PSIG; BALANCE: NITROGEN

UNCERTAINTIES: NO:  $\pm 0.4$  PPM, CO2:  $\pm 0.06$  %

THIS CYLINDER NO. SA4440  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY  $\pm 1$  % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 05/21/02  
EXPIRATION DATE 05/21/04 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 54.3 PPM  
CARBON DIOXIDE 11.11 %  
NITROGEN BALANCE  
NOx (FOR REFERENCE ONLY) 54.3 PPM

ANALYZED BY

JENNIFER MORYKIN

CERTIFIED BY

KEVIN BRADY





**RECEIVED**

MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

January 28, 2004

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 4th quarter 2003

Dear Ms. Seidel:

This EER is being submitted in accordance with the quarterly reporting requirements of 40 CFR 60.7(c) and (d). Attached is a summary utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 4th quarter, Boiler No. 5 operated within the opacity emission 99.72% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill had two shutdowns this quarter. One shutdown was scheduled, and the other was an emergency. Cargill Salt, St. Clair has identified (five) main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

Cause

Corrective Action Taken or Preventative Measure Adopted

Startup/shutdown  
(44%)

We had 26 total exceedences from startup and shutdown issues.

13 of these exceedences were after we tripped a transformer. A ground fault in a motor control center (MCC) tripped the overload on the transformer feeding the MCC. The transformer fed power to the fan motors on #5 boiler. We were trying to maintain a fire in #5 boiler without all the fans operating. We have changed our shutdown procedure in our Malfunction Abatement Plan to address this concern in the future.

11 of these exceedences were from the startup of a scheduled shutdown. When we changed from gas to coal we did not give enough gas to ignite the entire coal. We worked with all of the operators involved and have modified our start up procedures.

Two of these exceedences were from changing power.

Soot blowing  
(25%)

The 15 soot-blowing exceedences were decreased from the 24 in the 3<sup>rd</sup> quarter. The rebuilding of the second half of the Mechanical Collector should reduce these occurrences even more.

Other Known Causes  
(20%)

We had 12 total exceedences from other known causes.

Five exceedences were due to repairs to Stoker rotors. Three of these were to replace a bearing due to a broken grease line, one from replacing the magnetic pick-up, and one was to tighten a drag chain.

Four exceedences was for high electric load.

Two exceedences were from MCC #2 tripping. The disconnect switch was bad and has been replaced.

One exceedence was when the supply air to the baghouse was shut off for repair.

Process problems  
(7%)

We had four exceedences attributed to Process problems.

Three exceedences were due to changing air flow after the boiler was cleaned.

One exceedence was due to pressure swinging.

Unknown Causes  
(3%)

Two exceedences were not identified.

If you have any questions please call me at 810-326-2841.

Sincerely,

 1/28/04

Wade D. Richards  
Powerhouse Superintendent

cc: Dan Taylor  
Don Chutas  
Gene Chauffe

Janice Richards  
Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler

Table 1 – Opacity Excursions

Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity Reporting period: Fourth quarter, 2003

Company: Cargill Salt Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1) Total Source Operation Time 127500 min

Monitor Manufacturer, Model No., & Serial No.: Durag DR 90, #403074

**Emission Data Summary**

1	Duration of Excess Emissions (EE) in reporting period due to:	
a.	Startup/Shutdown	<u>156</u>
b.	Soot Blowing	<u>90</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>24</u>
e.	Other Known Causes	<u>72</u>
f.	Unknown Causes	<u>12</u>
2	Total Durations of EE's	<u>354</u>
3	Total Duration of EE's/Total Source Operation Time X 100	<u>0.28 %</u>

**CEM System Summary**

1	CEM system downtime in reporting period due to:	
a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>66</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>
2	Total CEM System Downtime	<u>66</u>
3	Total CEM System Downtime/Total Source Operation Time X 100	<u>0.05 %</u>

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: 

Date: 1/28/04

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	10/04/03	6:54 AM	28	Soot Blowing	Soot blowing
2	10/09/03	7:00 AM	89	Soot Blowing	Soot blowing
3	10/13/03	7:48 AM	32	Process Problems	Pressure swinging
4	10/14/03	10:42 PM	39	Other Known Causes	Tighten East Stoker drag chain
5	10/15/03	8:36 AM	36	Other Known Causes	MCC #2 tripped, fast fans tripped
6	10/15/03	8:42 AM	43	Other Known Causes	MCC #2 tripped, fast fans tripped
7	10/17/03	5:54 PM	21	Soot Blowing	Soot blowing
8	10/19/03	8:48 AM	28	Soot Blowing	Soot blowing
9	10/22/03	6:54 PM	21	Soot Blowing	Soot blowing
10	10/23/03	1:36 PM	30	Other Known Causes	Electric load high
11	10/23/03	4:48 PM	29	Other Known Causes	Electric load high
12	10/30/03	6:48 AM	27	Soot Blowing	Soot blowing
13	10/30/03	8:00 AM	29	Other Known Causes	Baghouse control air shut off for repair
14	10/30/03	10:42 AM	27	Unknown Causes	Unknown
15	11/02/03	1:42 PM	27	Startup/shutdown	Bank fire #5 MCC #3 tripping
16	11/02/03	2:18 PM	30	Startup/shutdown	Bank fire #5 MCC #3 tripping
17	11/02/03	2:24 PM	34	Startup/shutdown	Bank fire #5 MCC #3 tripping
18	11/02/03	2:30 PM	36	Startup/shutdown	Bank fire #5 MCC #3 tripping
19	11/02/03	2:36 PM	24	Startup/shutdown	Bank fire #5 MCC #3 tripping
20	11/02/03	2:42 PM	21	Startup/shutdown	Bank fire #5 MCC #3 tripping
21	11/02/03	2:48 PM	21	Startup/shutdown	Bank fire #5 MCC #3 tripping
22	11/02/03	3:06 PM	34	Startup/shutdown	Bank fire #5 MCC #3 tripping
23	11/02/03	3:24 PM	21	Startup/shutdown	Bank fire #5 MCC #3 tripping
24	11/02/03	3:36 PM	27	Startup/shutdown	Bank fire #5 MCC #3 tripping
25	11/02/03	3:42 PM	26	Startup/shutdown	Bank fire #5 MCC #3 tripping
26	11/02/03	3:54 PM	22	Startup/shutdown	Bank fire #5 MCC #3 tripping
27	11/02/03	4:06 PM	21	Startup/shutdown	Bank fire #5 MCC #3 tripping
28	11/02/03	4:48 PM	29	Startup/shutdown	Power change over
29	11/04/03	5:54 AM	28	Soot Blowing	Soot blowing
30	11/05/03	5:54 AM	34	Soot Blowing	Soot blowing
31	11/05/03	6:00 AM	38	Soot Blowing	Soot blowing
32	11/07/03	11:00 AM	31	Other Known Causes	Replacing East Stoker magnet and pick-up
33	11/12/03	7:54 AM	29	Soot Blowing	Soot blowing
34	11/14/03	7:54 AM	27	Soot Blowing	Soot blowing
35	11/26/03	3:24 PM	33	Other Known Causes	Electric load high
36	11/28/03	5:00 PM	34	Other Known Causes	Electric load high
37	11/30/03	6:54 PM	22	Soot Blowing	Soot blowing
38	12/01/03	8:54 PM	27	Startup/shutdown	Power change over
39	12/05/03	3:42 AM	57	Startup/shutdown	Switching from gas to coal
40	12/05/03	3:54 AM	23	Startup/shutdown	Switching from gas to coal
41	12/05/03	4:00 AM	43	Startup/shutdown	Switching from gas to coal
42	12/05/03	4:06 AM	50	Startup/shutdown	Switching from gas to coal
43	12/05/03	4:12 AM	36	Startup/shutdown	Switching from gas to coal
44	12/05/03	4:18 AM	32	Startup/shutdown	Switching from gas to coal
45	12/05/03	4:30 AM	41	Startup/shutdown	Switching from gas to coal
46	12/05/03	4:42 AM	23	Startup/shutdown	Switching from gas to coal
47	12/05/03	4:48 AM	21	Startup/shutdown	Switching from gas to coal



**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
48	12/05/03	4:54 AM	45	Startup/shutdown	Switching from gas to coal
49	12/05/03	5:06 AM	27	Startup/shutdown	Switching from gas to coal
50	12/05/03	11:54 AM	28	Soot Blowing	Soot blowing
51	12/05/03	1:24 PM	22	Process Problems	Air flow changes
52	12/05/03	1:30 PM	31	Process Problems	Air flow changes
53	12/05/03	1:36 PM	22	Process Problems	Air flow changes
54	12/09/03	7:54 AM	30	Other Known Causes	Repair center stoker grease line and seal
55	12/09/03	12:30 PM	25	Other Known Causes	Repair center stoker grease line and seal
56	12/09/03	12:42 PM	24	Other Known Causes	Repair center stoker grease line and seal
57	12/12/03	7:48 AM	24	Soot Blowing	Soot blowing
58	12/17/03	6:00 PM	46	Unknown Causes	Unknown
59	12/22/03	12:06 AM	36	Soot Blowing	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
10/01/03	11:48 PM	21	No	Within emission limits	Soot blowing
10/03/03	6:54 AM	23	No	Within emission limits	Soot blowing
10/03/03	8:54 AM	22	No	Within emission limits	Soot blowing
10/03/03	5:18 PM	21	No	Within emission limits	Bag house
10/03/03	6:54 PM	22	No	Within emission limits	Soot blowing
10/04/03	4:18 AM	21	No	Within emission limits	Baghouse
10/04/03	7:42 AM	23	No	Within emission limits	Soot blowing
10/04/03	6:54 PM	21	No	Within emission limits	Soot blowing
10/05/03	7:54 AM	22	No	Within emission limits	Soot blowing
10/05/03	3:54 PM	21	No	Within emission limits	Soot blowing
10/06/03	6:54 AM	23	No	Within emission limits	Soot blowing
10/06/03	7:48 AM	22	No	Within emission limits	Soot blowing
10/06/03	8:54 AM	21	No	Within emission limits	Soot blowing
10/06/03	3:48 PM	22	No	Within emission limits	Soot blowing
10/07/03	4:18 PM	25	No	Within emission limits	Soot blowing
10/08/03	8:48 PM	21	No	Within emission limits	Soot blowing
10/10/03	7:00 AM	22	No	Within emission limits	Soot blowing
10/10/03	5:54 PM	21	No	Within emission limits	Soot blowing
10/10/03	6:54 PM	21	No	Within emission limits	Soot blowing
10/10/03	11:48 PM	21	No	Within emission limits	Soot blowing
10/11/03	6:54 AM	21	No	Within emission limits	Soot blowing
10/11/03	4:54 PM	21	No	Within emission limits	Soot blowing
10/12/03	6:54 AM	24	No	Within emission limits	Soot blowing
10/12/03	7:54 AM	22	No	Within emission limits	Soot blowing
10/12/03	8:54 PM	23	No	Within emission limits	Soot blowing
10/13/03	6:42 AM	21	No	Within emission limits	Soot blowing
10/13/03	7:42 AM	21	No	Within emission limits	Soot blowing
10/13/03	3:00 PM	21	No	Within emission limits	Soot blowing
10/13/03	5:48 PM	24	No	Within emission limits	Soot blowing
10/13/03	9:24 PM	21	No	Within emission limits	Soot blowing
10/14/03	7:48 AM	21	No	Within emission limits	Soot blowing
10/14/03	9:30 PM	22	No	Within emission limits	Tighten East Stoker drag chain
10/14/03	10:18 PM	28	No	Within emission limits	Tighten East Stoker drag chain
10/15/03	2:24 PM	25	No	Within emission limits	Put co-fire on
10/15/03	5:54 PM	21	No	Within emission limits	Soot blowing
10/16/03	11:48 AM	21	No	Within emission limits	Soot blowing
10/16/03	5:54 PM	23	No	Within emission limits	Soot blowing
10/17/03	5:48 AM	24	No	Within emission limits	Soot blowing
10/17/03	6:54 PM	22	No	Within emission limits	Soot blowing
10/17/03	11:48 PM	22	No	Within emission limits	Soot blowing
10/18/03	5:54 AM	22	No	Within emission limits	Soot blowing
10/18/03	11:48 AM	22	No	Within emission limits	Soot blowing
10/18/03	5:54 PM	22	No	Within emission limits	Soot blowing
10/19/03	9:48 AM	23	No	Within emission limits	Soot blowing
10/19/03	5:48 PM	21	No	Within emission limits	Soot blowing
10/20/03	6:48 AM	24	No	Within emission limits	Soot blowing
10/20/03	7:42 AM	23	No	Within emission limits	Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
10/20/03	8:30 AM	24	No	Within emission limits	Soot blowing
10/20/03	12:48 PM	25	No	Within emission limits	Soot blowing
10/20/03	5:54 PM	24	No	Within emission limits	Soot blowing
10/20/03	7:00 PM	24	No	Within emission limits	Soot blowing
10/21/03	7:48 PM	21	No	Within emission limits	Soot blowing
10/21/03	8:24 PM	23	No	Within emission limits	Soot blowing
10/22/03	6:48 AM	24	No	Within emission limits	Soot blowing
10/23/03	5:54 AM	23	No	Within emission limits	Soot blowing
10/23/03	6:48 AM	23	No	Within emission limits	Soot blowing
10/23/03	11:48 AM	24	No	Within emission limits	Soot blowing
10/24/03	7:42 AM	22	No	Within emission limits	Soot blowing
10/24/03	8:42 AM	23	No	Within emission limits	Soot blowing
10/24/03	6:54 PM	22	No	Within emission limits	Soot blowing
10/25/03	6:54 AM	23	No	Within emission limits	Soot blowing
10/25/03	7:54 AM	22	No	Within emission limits	Soot blowing
10/25/03	2:48 PM	24	No	Within emission limits	Soot blowing
10/26/03	5:54 AM	21	No	Within emission limits	Soot blowing
10/26/03	6:54 PM	24	No	Within emission limits	Soot blowing
10/27/03	5:54 AM	23	No	Within emission limits	Soot blowing
10/27/03	11:48 AM	21	No	Within emission limits	Soot blowing
10/27/03	5:48 PM	23	No	Within emission limits	Soot blowing
10/28/03	1:48 AM	21	No	Within emission limits	Soot blowing
10/28/03	5:54 AM	24	No	Within emission limits	Soot blowing
10/28/03	6:00 AM	21	No	Within emission limits	Calibration
10/28/03	7:48 AM	23	No	Within emission limits	Soot blowing
10/29/03	5:54 AM	24	No	Within emission limits	Soot blowing
10/29/03	7:48 AM	22	No	Within emission limits	Soot blowing
10/29/03	5:48 PM	21	No	Within emission limits	Soot blowing
10/30/03	7:42 AM	23	No	Within emission limits	Baghouse control air shut off for repair
10/30/03	11:48 AM	23	No	Within emission limits	Soot blowing
10/30/03	2:24 PM	21	No	Within emission limits	Soot blowing
10/30/03	6:48 PM	25	No	Within emission limits	Soot blowing
10/30/03	7:48 PM	21	No	Within emission limits	Soot blowing
10/31/03	5:54 AM	25	No	Within emission limits	Soot blowing
10/31/03	6:06 AM	22	No	Within emission limits	Load swing
10/31/03	7:48 AM	22	No	Within emission limits	Soot blowing
10/31/03	8:54 AM	23	No	Within emission limits	Soot blowing
10/31/03	3:12 PM	25	No	Within emission limits	Soot blowing
11/01/03	5:54 AM	21	No	Within emission limits	Soot blowing
11/02/03	10:18 AM	23	No	Within emission limits	Bumping ID fan
11/02/03	1:18 PM	24	No	Within emission limits	#5 pressure raising
11/02/03	2:12 PM	25	No	Within emission limits	#5 co-fire tripped low gas pressure
11/02/03	3:12 PM	25	No	Within emission limits	#5 co-fire tripped low gas pressure
11/02/03	4:00 PM	22	No	Within emission limits	#5 co-fire tripped low gas pressure
11/02/03	6:48 PM	21	No	Within emission limits	Soot blowing
11/04/03	8:54 AM	21	No	Within emission limits	Soot blowing
11/04/03	9:54 AM	25	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
11/05/03	6:54 AM	23	No	Within emission limits	Soot blowing
11/06/03	5:54 AM	21	No	Within emission limits	Soot blowing
11/06/03	8:48 AM	24	No	Within emission limits	Soot blowing
11/06/03	7:48 PM	22	No	Within emission limits	Soot blowing
11/06/03	8:48 PM	22	No	Within emission limits	Soot blowing
11/07/03	5:54 AM	24	No	Within emission limits	Soot blowing
11/07/03	6:48 AM	21	No	Within emission limits	Soot blowing
11/07/03	11:06 AM	25	No	Within emission limits	Replacing East Stoker magnet and pick-up
11/07/03	5:48 PM	21	No	Within emission limits	Soot blowing
11/07/03	6:48 PM	21	No	Within emission limits	Soot blowing
11/08/03	5:54 AM	22	No	Within emission limits	Soot blowing
11/08/03	7:48 AM	21	No	Within emission limits	Soot blowing
11/09/03	5:54 AM	21	No	Within emission limits	Soot blowing
11/09/03	11:48 PM	21	No	Within emission limits	Soot blowing
11/10/03	7:54 PM	22	No	Within emission limits	Soot blowing
11/11/03	6:54 AM	22	No	Within emission limits	Soot blowing
11/12/03	6:54 AM	24	No	Within emission limits	Soot blowing
11/12/03	9:54 AM	23	No	Within emission limits	Soot blowing
11/12/03	1:48 PM	23	No	Within emission limits	Soot blowing
11/12/03	8:48 PM	21	No	Within emission limits	Soot blowing
11/13/03	5:54 AM	25	No	Within emission limits	Soot blowing
11/13/03	6:48 AM	22	No	Within emission limits	Soot blowing
11/13/03	8:12 AM	21	No	Within emission limits	Big grinder restarted
11/13/03	5:48 PM	22	No	Within emission limits	Soot blowing
11/14/03	5:54 AM	23	No	Within emission limits	Soot blowing
11/14/03	6:48 AM	22	No	Within emission limits	Soot blowing
11/14/03	6:54 PM	25	No	Within emission limits	Soot blowing
11/15/03	6:54 AM	26	No	Within emission limits	Soot blowing
11/15/03	8:48 AM	21	No	Within emission limits	Backwash condensor pump
11/15/03	5:48 PM	21	No	Within emission limits	Soot blowing
11/16/03	7:42 AM	21	No	Within emission limits	Soot blowing
11/16/03	11:48 AM	22	No	Within emission limits	Soot blowing
11/17/03	6:54 AM	21	No	Within emission limits	Soot blowing
11/17/03	5:54 PM	22	No	Within emission limits	Big grinder kicked out
11/17/03	11:48 PM	21	No	Within emission limits	Soot blowing
11/19/03	6:54 AM	22	No	Within emission limits	Soot blowing
11/20/03	6:48 AM	23	No	Within emission limits	Soot blowing
11/20/03	5:48 PM	22	No	Within emission limits	Soot blowing
11/21/03	5:54 AM	23	No	Within emission limits	Soot blowing
11/21/03	8:48 AM	24	No	Within emission limits	Soot blowing
11/21/03	3:42 PM	23	No	Within emission limits	Soot blowing
11/22/03	6:00 AM	21	No	Within emission limits	Soot blowing
11/22/03	5:48 PM	21	No	Within emission limits	Soot blowing
11/23/03	6:48 AM	21	No	Within emission limits	Soot blowing
11/23/03	7:54 AM	22	No	Within emission limits	Soot blowing
11/24/03	6:54 AM	21	No	Within emission limits	Soot blowing
11/24/03	11:54 AM	22	No	Within emission limits	Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
11/24/03	5:54 PM	21	No	Within emission limits	Soot blowing
11/25/03	7:24 AM	21	No	Within emission limits	Soot blowing
11/25/03	6:48 PM	21	No	Within emission limits	Soot blowing
11/26/03	11:48 AM	21	No	Within emission limits	Soot blowing
11/27/03	7:48 AM	22	No	Within emission limits	Soot blowing
11/28/03	5:48 AM	21	No	Within emission limits	Soot blowing
11/28/03	1:42 PM	21	No	Within emission limits	Soot blowing
11/28/03	2:00 PM	27	No	Within emission limits	Electric load high - big grinder
11/28/03	4:54 PM	21	No	Within emission limits	Electric load high - big grinder
11/28/03	6:54 PM	21	No	Within emission limits	Soot blowing
11/29/03	4:24 AM	23	No	Within emission limits	Soot blowing
11/29/03	6:54 AM	26	No	Within emission limits	Soot blowing
11/29/03	9:48 AM	21	No	Within emission limits	Soot blowing
11/30/03	5:54 AM	25	No	Within emission limits	Soot blowing
11/30/03	6:48 AM	21	No	Within emission limits	Soot blowing
12/01/03	5:54 AM	25	No	Within emission limits	Soot blowing
12/01/03	8:36 PM	22	No	Within emission limits	Startup/shutdown diesel generator
12/05/03	1:12 AM	22	No	Within emission limits	Raising fire on boiler
12/05/03	3:36 AM	24	No	Within emission limits	Changing to coal
12/05/03	4:24 AM	23	No	Within emission limits	Changing to coal
12/05/03	5:12 AM	26	No	Within emission limits	Changing coal
12/05/03	8:12 AM	21	No	Within emission limits	Power change over
12/05/03	1:18 PM	25	No	Within emission limits	Air flow changes
12/05/03	2:54 PM	26	No	Within emission limits	Soot blowing
12/06/03	5:54 PM	22	No	Within emission limits	Soot blowing
12/07/03	5:54 AM	22	No	Within emission limits	Soot blowing
12/07/03	11:54 AM	21	No	Within emission limits	Soot blowing
12/07/03	4:48 PM	21	No	Within emission limits	Soot blowing
12/08/03	6:54 AM	21	No	Within emission limits	Soot blowing
12/08/03	8:48 AM	24	No	Within emission limits	Soot blowing
12/08/03	6:48 PM	21	No	Within emission limits	Soot blowing
12/09/03	5:54 AM	24	No	Within emission limits	Soot blowing
12/09/03	6:48 AM	22	No	Within emission limits	Soot blowing
12/09/03	7:36 AM	24	No	Within emission limits	Repair center stoker grease line and seal
12/09/03	12:24 PM	24	No	Within emission limits	Repair center stoker grease line and seal
12/09/03	1:54 PM	24	No	Within emission limits	Soot blowing
12/09/03	3:12 PM	21	No	Within emission limits	Baghouse into cleaning
12/09/03	4:24 PM	21	No	Within emission limits	Baghouse into cleaning
12/10/03	6:48 AM	24	No	Within emission limits	Soot blowing
12/10/03	7:48 AM	21	No	Within emission limits	Soot blowing
12/10/03	12:48 PM	21	No	Within emission limits	Unknown
12/10/03	11:48 PM	23	No	Within emission limits	Soot blowing
12/11/03	6:00 AM	22	No	Within emission limits	Soot blowing
12/11/03	9:48 AM	21	No	Within emission limits	Soot blowing
12/11/03	5:54 PM	21	No	Within emission limits	Soot blowing
12/11/03	7:54 PM	21	No	Within emission limits	Soot blowing
12/11/03	11:48 PM	22	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
12/12/03	7:06 AM	21	No	Within emission limits	Changing air flow and rates
12/12/03	9:54 AM	21	No	Within emission limits	Soot blowing
12/12/03	5:54 PM	21	No	Within emission limits	Soot blowing
12/14/03	7:48 AM	25	No	Within emission limits	Soot blowing
12/14/03	3:54 PM	23	No	Within emission limits	Soot blowing
12/14/03	5:54 PM	24	No	Within emission limits	Soot blowing
12/14/03	6:00 PM	26	No	Within emission limits	Soot blowing
12/15/03	5:54 AM	22	No	Within emission limits	Soot blowing
12/17/03	6:48 AM	24	No	Within emission limits	Soot blowing
12/19/03	4:06 AM	21	No	Within emission limits	Coal scale down
12/19/03	6:42 AM	21	No	Within emission limits	Soot blowing
12/19/03	2:18 PM	21	No	Within emission limits	Soot blowing
12/22/03	11:30 AM	23	No	Within emission limits	Soot blowing
12/24/03	10:42 AM	22	No	Within emission limits	Soot blowing
12/26/03	8:54 AM	21	No	Within emission limits	Soot blowing
12/26/03	6:54 PM	22	No	Within emission limits	Soot blowing
12/27/03	6:54 PM	22	No	Within emission limits	Soot blowing
12/28/03	6:42 AM	22	No	Within emission limits	Soot blowing
12/29/03	6:54 AM	21	No	Within emission limits	Soot blowing
12/31/03	5:54 AM	23	No	Within emission limits	Soot blowing
12/31/03	6:00 PM	23	No	Within emission limits	Soot blowing



**RECEIVED**

MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

January 28, 2004

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

Re: Boiler No. 10 Semi-annual Emissions Report for the 2nd half of 2003

Dear Ms. Seidel:

This Semiannual Emissions Report is being submitted in accordance with the reporting requirements from the State of Michigan Renewable Operating Permit No. 199700084 Table E-01.3 EGBOILER10. Boiler No. 10 was operated using Natural Gas only during the entire reporting period. No excess emissions occurred during the semiannual reporting period of the second half of 2003.

The average NO<sub>x</sub> and CO<sub>2</sub> emission rates (lb/MM Btu heat input) and the 30-day average NO<sub>x</sub> emission rates (lb/MM Btu heat input) are summarized in Attachment A.

There was zero operating days when the 30-day average NO<sub>x</sub> emission rate exceeded the limit under 60.44b.

Pollution data was obtained throughout the reporting period. In 6 of these days, July 16 through July 21, the calibration gas cylinder was empty. We hooked the new cylinder up to the CEM and restored it to normal operation.

Emission data excluded from the calculations of average emission rates and reasons for excluding data:

There were 6 days when the calculations were excluded. See above.

"F" factor is 1,040 dscf / MMBtu.

The pollutant concentrations did not exceed full span of the CEMS during the quarter.

No modifications were made to the CEM that could affect the ability of the CEMS to comply with PS 2 or 3.

Attachment B contains the daily CEMS drift test.

Attachment C contains the NO<sub>x</sub> / CO<sub>2</sub> Span gas Certificate of Analysis.

If you have any questions please call me at 810-326-2841.

Sincerely,



1/28/04

Wade D. Richards  
Powerhouse Superintendent

cc: Dan Taylor  
Don Chutas  
Gene Chauffe  
Janice Richards  
Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

**Attachments**

Boiler No. 10 NO<sub>x</sub> Daily Averages, Emission Data, 30-Day Average NO<sub>x</sub>  
Boiler No. 10 Daily Calibration (zero / span)  
Certificate of Analysis / EPA Protocol Gas



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx  
Diluent: O2

Reporting period: July-December 2003

Company: Cargill Salt Unit Description: Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmbtu 30 day avg. Total Source Operation Time 4,268 hours

Monitor Manufacturer, Model No., & Serial No.: NOx TECO Model #42C, S/N #873662-374  
CO2 CAI Model ZRH S/N A1J3876T

**Emission Data Summary**

- 1 Duration of Excess Emissions (EE) in reporting period due to:
- |    |                            |          |
|----|----------------------------|----------|
| a. | Startup/Shutdown           | <u>0</u> |
| b. | Soot Blowing               | <u>0</u> |
| c. | Control Equipment Problems | <u>0</u> |
| d. | Process Problems           | <u>0</u> |
| e. | Other Known Causes         | <u>0</u> |
| f. | Unknown Causes             | <u>0</u> |
- 2 Total Durations of EE's
- 3 Total Duration of EE's/Total Source Operation Time X 100 0 %

**CEM System Summary**

- 1 CEM system downtime in reporting period due to:
- |    |   |            |
|----|---|------------|
| a. | Monitor Equipment Malfunctions          | <u>0</u>   |
| b. | Non-Monitor Equipment Malfunctions      | <u>144</u> |
| c. | Quality Assurance Calibrations (Excess) | <u>0</u>   |
| d. | Other Known Causes                      | <u>0</u>   |
| e. | Unknown Causes                          | <u>0</u>   |
- 2 Total CEM System Downtime 144
- 3 Total CEM System Downtime/Total Source Operation Time X 100 4.5%

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: Wanda Ilse

Date: 1/28/04

**Attachment A**

**Boiler 10 Emissions Data 30-day average NOx**

<b>Date</b>	<b>NOx Parts per Million</b>	<b>NOx Pounds per Mbtu</b>	<b>CO2</b>	<b>30-Day Average</b>	<b>Comments</b>
12/31/2003	48.48	0.084	7.15	0.081	
12/30/2003	47.09	0.084	6.97	0.080	
12/29/2003	47.54	0.082	7.17	0.080	
12/28/2003	49.79	0.085	7.28	0.080	
12/27/2003	48.90	0.082	7.33	0.080	
12/26/2003	48.75	0.083	7.31	0.080	
12/25/2003	50.06	0.085	7.27	0.080	
12/24/2003	50.48	0.086	7.29	0.079	
12/23/2003	46.73	0.082	7.07	0.079	
12/22/2003	45.60	0.080	7.06	0.079	
12/21/2003	51.88	0.088	7.32	0.079	
12/20/2003	53.34	0.090	7.34	0.078	
12/19/2003	53.47	0.090	7.36	0.078	
12/18/2003	51.40	0.088	7.26	0.078	
12/17/2003	50.51	0.087	7.22	0.077	
12/16/2003	44.22	0.080	6.86	0.077	
12/15/2003	49.47	0.084	7.26	0.077	
12/14/2003	50.73	0.086	7.28	0.077	
12/13/2003	52.19	0.087	7.46	0.077	
12/12/2003	50.24	0.086	7.18	0.077	
12/11/2003	47.10	0.082	7.12	0.077	
12/10/2003	46.33	0.081	7.09	0.076	
12/9/2003	46.25	0.079	7.25	0.076	
12/8/2003	47.69	0.081	7.34	0.077	
12/7/2003	49.21	0.082	7.47	0.077	
12/6/2003	48.30	0.082	7.32	0.077	
12/5/2003	37.57	0.077	5.76	0.077	<b>Boiler was down for outage</b>
12/4/2003	9.23	0.052	2.06	0.077	<b>Boiler was down for outage</b>
12/3/2003	0.26	0.104	0.32	0.078	<b>Boiler was down for outage</b>
12/2/2003	0.00	0.000	0.46	0.077	<b>Boiler was down for outage</b>
12/1/2003	42.05	0.064	6.40	0.079	<b>Boiler was down for outage</b>
11/30/2003	53.69	0.082	8.10	0.079	
11/29/2003	53.93	0.083	8.07	0.079	
11/28/2003	51.71	0.081	7.86	0.079	
11/27/2003	51.96	0.080	8.07	0.079	
11/26/2003	51.55	0.079	8.09	0.079	
11/25/2003	50.36	0.079	7.93	0.080	
11/24/2003	49.96	0.080	7.72	0.080	
11/23/2003	46.63	0.074	7.85	0.080	
11/22/2003	48.03	0.076	7.85	0.080	
11/21/2003	48.89	0.077	7.86	0.081	
11/20/2003	51.76	0.081	7.90	0.081	
11/19/2003	48.94	0.078	7.78	0.081	
11/18/2003	46.04	0.074	7.76	0.081	
11/17/2003	52.32	0.080	8.10	0.081	
11/16/2003	51.59	0.080	8.03	0.081	
11/15/2003	54.09	0.083	8.05	0.082	
11/14/2003	55.58	0.085	8.08	0.082	

11/13/2003	54.09	0.085	7.92	0.082	
11/12/2003	49.09	0.078	7.77	0.081	
11/11/2003	47.32	0.075	7.82	0.082	
11/10/2003	54.54	0.082	8.27	0.082	
11/9/2003	56.00	0.082	8.48	0.081	
11/8/2003	56.13	0.084	8.31	0.081	
11/7/2003	55.77	0.086	8.04	0.081	
11/6/2003	54.17	0.084	8.02	0.081	
11/5/2003	50.58	0.080	7.87	0.080	
11/4/2003	46.50	0.074	7.76	0.081	
11/3/2003	49.54	0.078	7.89	0.081	
11/2/2003	40.16	0.066	6.82	0.081	
11/1/2003	49.87	0.078	7.96	0.082	
10/31/2003	48.28	0.076	7.88	0.083	
10/30/2003	52.67	0.083	7.88	0.083	
10/29/2003	52.52	0.085	7.71	0.083	
10/28/2003	49.62	0.081	7.58	0.083	
10/27/2003	52.37	0.084	7.74	0.084	
10/26/2003	52.07	0.083	7.80	0.084	
10/25/2003	51.63	0.082	7.81	0.084	
10/24/2003	54.33	0.086	7.85	0.084	
10/23/2003	52.33	0.085	7.65	0.084	
10/22/2003	52.25	0.086	7.58	0.084	
10/21/2003	43.75	0.077	7.06	0.084	
10/20/2003	51.25	0.083	7.65	0.084	
10/19/2003	52.10	0.084	7.73	0.084	
10/18/2003	53.71	0.087	7.71	0.084	
10/17/2003	54.85	0.088	7.77	0.084	
10/16/2003	53.22	0.086	7.69	0.083	
10/15/2003	52.84	0.087	7.57	0.083	
10/14/2003	42.60	0.074	7.15	0.083	
10/13/2003	48.64	0.079	7.62	0.083	
10/12/2003	47.44	0.077	7.62	0.083	
10/11/2003	46.21	0.075	7.70	0.083	
10/10/2003	46.57	0.075	7.76	0.083	
10/9/2003	46.71	0.075	7.71	0.083	
10/8/2003	50.03	0.080	7.75	0.083	
10/7/2003	47.79	0.079	7.49	0.083	
10/6/2003	54.49	0.087	7.77	0.083	
10/5/2003	54.41	0.088	7.71	0.083	
10/4/2003	52.64	0.087	7.55	0.083	
10/3/2003	53.91	0.088	7.60	0.083	
10/2/2003	55.85	0.089	7.80	0.083	
10/1/2003	55.89	0.089	7.68	0.082	
9/30/2003	55.36	0.090	7.58	0.082	
9/29/2003	57.00	0.092	7.64	0.082	
9/28/2003	55.00	0.090	7.55	0.081	
9/27/2003	55.28	0.090	7.66	0.081	
9/26/2003	54.68	0.089	7.52	0.080	
9/25/2003	55.71	0.091	7.60	0.080	
9/24/2003	50.81	0.085	7.42	0.079	
9/23/2003	44.25	0.078	7.06	0.078	

9/22/2003	45.49	0.076	7.27	0.078	
9/21/2003	52.68	0.084	7.73	0.078	
9/20/2003	52.28	0.084	7.71	0.078	
9/19/2003	46.67	0.077	7.50	0.077	
9/18/2003	48.30	0.077	7.72	0.077	
9/17/2003	45.93	0.080	7.22	0.077	
9/16/2003	48.74	0.079	6.94	0.077	
9/15/2003	50.59	0.082	7.64	0.077	
9/14/2003	46.71	0.076	7.59	0.076	
9/13/2003	47.97	0.078	7.64	0.075	
9/12/2003	49.62	0.080	7.65	0.075	
9/11/2003	48.51	0.078	7.67	0.075	
9/10/2003	48.44	0.078	7.69	0.074	
9/9/2003	51.32	0.082	7.73	0.074	
9/8/2003	48.62	0.078	7.70	0.074	
9/7/2003	48.81	0.079	7.64	0.073	
9/6/2003	54.17	0.087	7.75	0.073	
9/5/2003	53.89	0.086	7.78	0.072	
9/4/2003	51.26	0.083	7.67	0.072	
9/3/2003	44.20	0.074	7.35	0.072	
9/2/2003	46.35	0.077	7.50	0.072	
9/1/2003	48.10	0.078	7.61	0.071	
8/31/2003	48.93	0.079	7.64	0.071	
8/30/2003	48.65	0.079	7.65	0.071	
8/29/2003	44.12	0.073	7.53	0.070	
8/28/2003	42.98	0.074	7.22	0.070	
8/27/2003	45.68	0.075	7.50	0.070	
8/26/2003	39.78	0.068	7.21	0.070	
8/25/2003	37.95	0.067	7.05	0.070	
8/24/2003	48.54	0.079	7.58	0.070	
8/23/2003	47.58	0.078	7.58	0.070	
8/22/2003	42.98	0.072	7.36	0.069	
8/21/2003	40.56	0.068	7.35	0.069	
8/20/2003	42.92	0.072	7.42	0.069	
8/19/2003	42.23	0.071	7.39	0.069	
8/18/2003	43.10	0.072	7.41	0.069	
8/17/2003	44.34	0.074	7.48	0.069	
8/16/2003	40.85	0.068	7.42	0.069	
8/15/2003	30.37	0.056	5.73	0.069	
8/14/2003	42.09	0.068	7.53	0.070	
8/13/2003	36.87	0.065	6.97	0.070	
8/12/2003	40.79	0.068	7.49	0.070	
8/11/2003	42.71	0.070	7.55	0.070	
8/10/2003	41.18	0.069	7.43	0.070	
8/9/2003	40.51	0.068	7.42	0.070	
8/8/2003	41.39	0.068	7.37	0.070	
8/7/2003	44.12	0.074	7.40	0.070	
8/6/2003	38.72	0.069	6.93	0.070	
8/5/2003	41.76	0.072	7.27	0.071	
8/4/2003	44.49	0.074	7.48	0.071	
8/3/2003	41.27	0.069	7.39	0.071	
8/2/2003	43.94	0.072	7.54	0.071	

8/1/2003	42.28	0.070	7.49	0.071	
7/31/2003	43.13	0.071	7.51	0.071	
7/30/2003	43.90	0.072	7.53	0.071	
7/29/2003	41.58	0.070	7.31	0.071	
7/28/2003	44.25	0.072	7.59	0.071	
7/27/2003	39.64	0.065	7.51	0.071	
7/26/2003	40.81	0.067	7.61	0.072	
7/25/2003	39.65	0.066	7.42	0.072	
7/24/2003	41.10	0.067	7.57	0.073	
7/23/2003	40.04	0.066	7.54	0.073	
7/22/2003	38.94	0.065	7.46	0.073	
7/21/2003	37.92	0.065	7.13	N/A	
7/20/2003	42.94	0.073	7.26	N/A	
7/19/2003	47.74	0.080	7.45	N/A	
7/18/2003	44.81	0.076	7.34	N/A	
7/17/2003	39.03	0.067	7.19	N/A	
7/16/2003	42.02	0.072	7.25	N/A	
7/15/2003	39.10	0.068	7.13	0.073	
7/14/2003	44.91	0.075	7.44	0.073	
7/13/2003	45.03	0.075	7.45	0.073	
7/12/2003	44.08	0.075	7.30	0.073	
7/11/2003	41.10	0.071	7.20	0.073	
7/10/2003	41.38	0.071	7.24	0.073	
7/9/2003	45.00	0.075	7.41	0.073	
7/8/2003	41.57	0.070	7.31	0.073	
7/7/2003	37.75	0.066	7.06	0.073	
7/6/2003	39.94	0.068	7.22	0.073	
7/5/2003	38.11	0.066	7.08	0.073	
7/4/2003	40.92	0.070	7.25	0.074	
7/3/2003	43.49	0.073	7.32	0.079	
7/2/2003	46.21	0.077	7.44	0.080	
7/1/2003	46.70	0.077	7.53	0.080	

**Attachment B**  
**Boiler 10 NOx Daily Calibrations**

<b>Date</b>	<b>NOx Parts per Million</b>		<b>CO2</b>	
	<b>Zero</b>	<b>Span</b>	<b>Zero</b>	<b>Span</b>
12/31/2003	0.12	55.88	0.12	11.10
12/30/2003	0.12	54.98	0.16	10.99
12/29/2003	0.11	55.26	0.18	11.09
12/28/2003	0.13	55.85	0.16	11.20
12/27/2003	0.13	56.27	0.15	11.34
12/26/2003	0.12	55.78	0.17	11.24
12/25/2003	0.13	55.40	0.18	11.03
12/24/2003	0.14	55.11	0.19	11.04
12/23/2003	0.21	55.07	0.19	11.01
12/22/2003	0.10	51.85	0.21	11.00
12/21/2003	0.06	53.19	0.11	11.01
12/20/2003	0.08	53.01	0.12	11.01
12/19/2003	0.10	52.38	0.15	10.89
12/18/2003	0.09	52.45	0.12	10.77
12/17/2003	0.10	52.25	0.15	10.83
12/16/2003	0.07	52.33	0.13	10.84
12/15/2003	0.07	52.77	0.14	11.02
12/14/2003	0.06	53.07	0.10	10.97
12/13/2003	0.05	54.15	0.04	11.19
12/12/2003	0.06	53.00	0.10	10.99
12/11/2003	0.06	52.97	0.16	10.71
12/10/2003	0.06	53.32	0.21	10.91
12/9/2003	0.04	53.82	0.23	11.15
12/8/2003	0.05	54.26	0.22	11.21
12/7/2003	0.04	54.41	0.27	11.31
12/6/2003	0.14	54.39	0.10	11.11
12/5/2003	0.00	30.08	0.57	7.18
12/4/2003	0.00	29.50	0.40	6.76
12/2/2003	0.00	53.42	0.47	11.66
12/1/2003	0.00	54.20	0.52	11.72
11/30/2003	0.00	53.51	0.58	11.59
11/29/2003	0.00	53.56	0.41	11.44
11/28/2003	0.00	53.86	0.43	11.52
11/27/2003	0.00	54.38	0.41	11.66
11/26/2003	0.00	54.11	0.48	11.67
11/25/2003	0.00	53.06	0.31	11.51
11/24/2003	0.00	52.77	0.34	11.22
11/23/2003	0.00	53.40	0.38	11.52
11/22/2003	0.00	53.93	0.29	11.49
11/21/2003	0.00	53.53	0.32	11.43
11/20/2003	0.00	53.95	0.27	11.43
11/19/2003	0.00	53.10	0.36	11.29
11/18/2003	0.00	53.97	0.37	11.56
11/17/2003	0.00	54.36	0.37	11.72
11/16/2003	0.00	54.39	0.37	11.65
11/15/2003	0.00	54.38	0.37	11.62
11/14/2003	0.00	54.29	0.38	11.64
11/13/2003	0.00	53.52	0.28	11.23

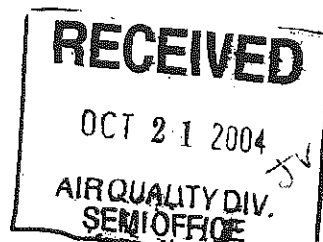
11/12/2003	0.00	53.64	0.33	11.41
11/11/2003	0.00	53.73	0.40	11.45
11/10/2003	0.00	54.68	0.40	11.90
11/9/2003	0.00	54.47	0.39	12.06
11/8/2003	0.00	55.17	0.27	11.84
11/7/2003	0.00	54.44	0.22	11.56
11/6/2003	0.00	54.31	0.25	11.61
11/5/2003	0.00	52.84	0.28	11.39
11/4/2003	0.00	53.45	0.27	11.47
11/3/2003	0.00	53.51	0.29	11.61
11/2/2003	0.00	53.48	0.25	11.54
11/1/2003	0.00	53.22	0.26	11.66
10/31/2003	0.00	53.09	0.27	11.44
10/30/2003	0.00	53.88	0.24	11.44
10/29/2003	0.00	53.33	0.24	11.13
10/28/2003	0.00	53.33	0.22	11.12
10/27/2003	0.00	53.86	0.18	11.25
10/26/2003	0.00	53.86	0.19	11.40
10/25/2003	0.00	53.79	0.17	11.36
10/24/2003	0.00	54.19	0.18	11.34
10/23/2003	0.00	53.58	0.09	11.06
10/22/2003	0.00	53.75	0.09	11.07
10/21/2003	0.13	52.73	0.20	10.89
10/20/2003	0.20	54.28	0.14	11.21
10/19/2003	0.16	54.27	0.16	11.17
10/18/2003	0.19	54.44	0.18	11.24
10/17/2003	0.21	54.52	0.12	11.24
10/16/2003	0.17	49.80	0.15	10.12
10/15/2003	0.16	53.64	0.13	10.87
10/14/2003	0.16	52.85	0.15	10.90
10/13/2003	0.19	53.40	0.13	11.13
10/12/2003	0.20	52.66	0.20	11.08
10/11/2003	0.19	53.30	0.18	11.28
10/10/2003	0.19	53.45	0.18	11.28
10/9/2003	0.20	53.64	0.16	11.30
10/8/2003	0.19	53.92	0.15	11.20
10/7/2003	0.21	54.23	0.11	11.14
10/6/2003	0.21	54.54	0.12	11.19
10/5/2003	0.17	54.06	0.11	11.04
10/4/2003	0.19	53.46	0.14	10.83
10/3/2003	0.20	54.18	0.15	11.12
10/2/2003	0.23	54.56	0.12	11.19
10/1/2003	0.23	59.18	0.10	11.26
9/30/2003	0.21	58.63	0.07	11.13
9/29/2003	0.19	58.15	0.08	11.08
9/28/2003	0.20	57.83	0.08	10.94
9/26/2003	0.21	58.25	0.07	11.08
9/25/2003	0.20	57.90	0.08	11.01
9/24/2003	0.21	57.90	0.06	11.03
9/23/2003	0.21	57.35	0.07	10.90
9/22/2003	0.22	57.28	0.17	11.18
9/21/2003	0.20	58.25	0.14	11.42

9/20/2003	0.20	57.97	0.14	11.30
9/19/2003	0.21	56.56	0.20	11.08
9/18/2003	0.22	59.34	0.22	11.57
9/16/2003	0.28	57.73	0.15	11.28
9/15/2003	0.21	57.00	0.19	11.20
9/14/2003	0.21	57.40	0.19	11.31
9/13/2003	0.21	57.55	0.18	11.35
9/12/2003	0.21	57.50	0.19	11.39
9/11/2003	0.21	57.72	0.19	11.50
9/10/2003	0.22	57.80	0.18	11.46
9/9/2003	0.21	57.78	0.18	11.45
9/8/2003	0.21	57.40	0.20	11.38
9/7/2003	0.21	57.46	0.18	11.32
9/6/2003	0.20	57.86	0.15	11.34
9/5/2003	0.20	57.64	0.18	11.35
9/4/2003	0.22	56.91	0.19	11.20
9/3/2003	0.20	56.86	0.17	11.21
9/2/2003	0.20	57.56	0.16	11.32
9/1/2003	0.19	57.53	0.18	11.39
8/31/2003	0.21	57.87	0.16	11.44
8/30/2003	0.20	57.41	0.19	11.42
8/29/2003	0.20	56.79	0.19	11.17
8/28/2003	0.20	57.26	0.17	11.33
8/27/2003	0.21	56.99	0.18	11.16
8/26/2003	0.19	56.69	0.18	11.12
8/25/2003	0.19	56.57	0.20	11.22
8/24/2003	0.20	57.46	0.17	11.40
8/23/2003	0.19	56.97	0.20	11.35
8/22/2003	0.20	56.79	0.17	11.19
8/21/2003	0.20	56.73	0.18	11.25
8/20/2003	0.20	56.75	0.18	11.36
8/19/2003	0.20	56.61	0.20	11.41
8/18/2003	0.20	56.56	0.17	11.33
8/17/2003	0.19	56.16	0.18	11.28
8/16/2003	0.19	56.00	0.20	11.24
8/14/2003	0.19	56.48	0.19	11.57
8/13/2003	0.19	55.54	0.19	11.44
8/12/2003	0.19	55.34	0.18	11.34
8/11/2003	0.19	54.77	0.18	11.25
8/10/2003	0.19	54.46	0.18	11.27
8/9/2003	0.24	54.32	0.19	11.29
8/8/2003	0.27	57.90	0.08	11.08
8/7/2003	0.29	57.49	0.09	11.06
8/6/2003	0.39	56.38	0.12	11.09
8/5/2003	0.20	60.18	0.15	11.36
8/4/2003	0.20	59.94	0.15	11.38
8/3/2003	0.20	59.66	0.15	11.46
8/2/2003	0.20	58.89	0.16	11.48
8/1/2003	0.19	58.75	0.15	11.48
7/31/2003	0.20	58.31	0.15	11.51
7/30/2003	0.20	57.76	0.16	11.56
7/29/2003	0.20	57.55	0.13	11.44



7/28/2003	0.19	55.95	0.16	11.48
7/27/2003	0.19	54.90	0.17	11.43
7/26/2003	0.19	54.57	0.18	11.67
7/25/2003	0.18	54.12	0.16	11.53
7/24/2003	0.19	54.35	0.15	11.50
7/23/2003	0.18	53.93	0.14	11.40
7/22/2003	0.21	53.84	0.15	11.31
7/21/2003	48.08	57.49	9.00	10.93
7/20/2003	51.94	57.05	9.78	11.15
7/19/2003	55.92	57.94	10.40	11.19
7/18/2003	56.18	56.93	10.93	11.23
7/17/2003	38.77	56.42	6.22	11.26
7/16/2003	7.68	56.34	0.36	11.12
7/15/2003	0.34	56.00	0.15	11.16
7/14/2003	0.21	56.61	0.10	11.35
7/13/2003	0.20	56.80	0.07	11.25
7/12/2003	0.19	56.64	0.05	10.98
7/11/2003	0.19	54.25	0.09	10.85
7/10/2003	0.19	55.95	0.08	11.08
7/9/2003	0.20	56.71	0.07	11.12
7/8/2003	0.21	56.58	0.07	11.11
7/7/2003	0.19	56.21	0.06	11.06
7/6/2003	0.19	56.33	0.07	11.14
7/5/2003	0.20	56.53	0.04	11.03
7/4/2003	0.20	55.87	0.06	11.01
7/3/2003	0.20	55.45	0.07	11.07
7/2/2003	0.21	54.74	0.09	11.18
7/1/2003	0.20	55.99	0.09	11.33

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MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

October 18, 2004

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 3rd quarter 2004  
Boiler #10 hours of operation for 3<sup>rd</sup> quarter of 2004

Dear Ms. Seidel:

This EER is being submitted in accordance with the quarterly reporting requirements of 40 CFR 60.7(c) and (d). Attached is a summary utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 3rd quarter, Boiler No. 5 operated within the opacity emission 99.88% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill had two scheduled shutdowns this quarter. Cargill Salt, St. Clair has identified three main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

Cause

Corrective Action Taken or Preventative Measure Adopted

Process problems  
(44%) 11 Occurrences

Five process occurrences were attributed to clinkers falling off the back wall and blocking the air in the front of the boiler. The two separate occasions when this happened, the clinkers were large enough to disturb coal distribution. The clinkers were too large to fit under the front wall. The clinkers were removed by opening the front doors. We now monitor the build-up on back wall and knock them down while still small.

4 exceedences were caused when over half of our steam production was stopped immediately due to a revised program being loaded into our plant operating system. The program was downloaded to improve an unrelated area of the plant. An outside

contractor was responsible for the programming and they have been educated as to the effect of their actions.

The east stoker locked up causing two exceedences. The incoming coal is screened and sent through a magnet. We did not find any foreign material that caused the lock up.

Startup/shutdowns  
(44%) 11 Occurrences

Six exceedences were due to the co-fire kicking out when we switched from gas to coal. We adjusted the burner sensitivity to allow for the change in coal fire and gas signal.

Three exceedences occurred when we made air and coal adjustments coming out of a start-up. We changed the previous air control setup due to air improvements we made.

One exceedence was when we switched the power.

One exceedence was when the overfire air would not start. The relay was kicked out. It was reset and it operated.

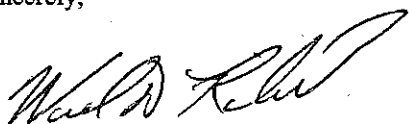
Soot blowing  
(12%)

There were three soot-blowing exceedences in the 3<sup>rd</sup> quarter 2004.

#10 Boiler operated for 130,153 minutes or 2169 hours and 13 minutes for the 3<sup>rd</sup> quarter of 2004.

If you have any questions please call me at 810-326-2841.

Sincerely,



Wade D. Richards  
Powerhouse Superintendent

cc: Don Chutas  
EHS File

Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler

Table 1 – Opacity Excursions

Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	07/06/04	1:24 PM	35	Process problems	Process change lost half Alberger
2	07/06/04	1:30 PM	34	Process problems	Process change lost half Alberger
3	07/06/04	1:42 PM	23	Process problems	Process change lost half Alberger
4	07/06/04	1:48 PM	28	Process problems	Process change lost half Alberger
5	07/14/04	6:48 AM	29	Process problems	Clinker fell of back wall
6	07/14/04	6:54 AM	41	Process problems	Clinker fell of back wall
7	07/14/04	7:00 AM	32	Process problems	Clinker fell of back wall
8	07/14/04	10:00 PM	28	Soot blowing	Soot blowing
9	07/16/04	11:48 AM	31	Process problems	Clinker fell off back wall
10	07/16/04	11:54 AM	33	Process problems	Clinker fell off back wall
11	08/09/04	6:48 AM	31	Soot blowing	Soot blowing
12	08/18/04	11:30 PM	87	Startup/shutdown	Overfire air fan did not start
13	08/19/04	10:00 PM	38	Startup/shutdown	Startup/shutdown switch to coal, co-fire tripped
14	08/19/04	10:06 PM	56	Startup/shutdown	Startup/shutdown switch to coal, co-fire tripped
15	08/19/04	10:12 PM	35	Startup/shutdown	Startup/shutdown switch to coal, co-fire tripped
16	08/19/04	10:24 PM	61	Startup/shutdown	Startup/shutdown switch to coal, co-fire tripped
17	08/19/04	10:30 PM	49	Startup/shutdown	Startup/shutdown switch to coal, co-fire tripped
18	08/20/04	2:42 AM	22	Startup/shutdown	Startup/shutdown switch to coal, co-fire tripped
19	08/20/04	5:36 AM	25	Startup/shutdown	Startup/shutdown change power
20	08/20/04	7:12 AM	35	Startup/shutdown	Startup/shutdown boiler adjustments
21	08/20/04	7:18 AM	21	Startup/shutdown	Startup/shutdown boiler adjustments
22	08/20/04	7:24 AM	22	Startup/shutdown	Startup/shutdown boiler adjustments
23	08/27/04	8:54 PM	26	Soot blowing	Soot blowing
24	09/21/04	9:54 AM	54	Process problems	East soot blower locked up
25	09/21/04	10:00 AM	32	Process problems	East soot blower locked up

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
07/02/04	6:48 AM	22	No	Within emission limits	Soot blowing
07/02/04	5:54 PM	21	No	Within emission limits	Soot blowing
07/06/04	1:36 PM	24	No	Within emission limits	Process change lost half Alberger
07/06/04	2:06 PM	21	No	Within emission limits	Process change lost half Alberger
07/06/04	6:48 PM	21	No	Within emission limits	Soot blowing
07/06/04	7:48 PM	21	No	Within emission limits	Soot blowing
07/07/04	11:42 AM	21	No	Within emission limits	Soot blowing
07/08/04	6:48 AM	22	No	Within emission limits	Soot blowing
07/08/04	9:48 AM	26	No	Within emission limits	Soot blowing
07/09/04	5:54 PM	21	No	Within emission limits	Soot blowing
07/13/04	10:00 PM	23	No	Within emission limits	Co-fire tripped
07/14/04	7:06 AM	27	No	Within emission limits	Clinker fell off back wall
07/14/04	1:48 PM	21	No	Within emission limits	Soot blowing
07/14/04	2:12 PM	21	No	Within emission limits	Soot blowing
07/14/04	7:00 PM	22	No	Within emission limits	Soot blowing
07/14/04	8:06 PM	21	No	Within emission limits	Soot blowing
07/16/04	10:42 AM	21	No	Within emission limits	Soot blowing
07/16/04	7:00 PM	22	No	Within emission limits	Soot blowing
07/16/04	8:06 PM	21	No	Within emission limits	Soot blowing
07/17/04	5:54 PM	22	No	Within emission limits	Soot blowing
07/17/04	6:48 PM	24	No	Within emission limits	Soot blowing
07/18/04	5:54 PM	21	No	Within emission limits	Soot blowing
07/19/04	6:48 AM	21	No	Within emission limits	Soot blowing
07/19/04	6:54 PM	21	No	Within emission limits	Soot blowing
07/21/04	6:47 PM	23	No	Within emission limits	Soot blowing
07/21/04	7:48 PM	26	No	Within emission limits	Soot blowing
07/21/04	8:42 PM	23	No	Within emission limits	Soot blowing
07/21/04	9:48 PM	22	No	Within emission limits	Soot blowing
07/22/04	6:54 PM	21	No	Within emission limits	Soot blowing
07/22/04	7:54 PM	21	No	Within emission limits	Soot blowing
07/23/04	6:48 PM	21	No	Within emission limits	Soot blowing
07/24/04	8:42 AM	21	No	Within emission limits	Soot blowing
07/24/04	5:54 PM	23	No	Within emission limits	Soot blowing
07/24/04	6:54 PM	23	No	Within emission limits	Soot blowing
07/25/04	6:54 PM	21	No	Within emission limits	Soot blowing
07/26/04	5:54 PM	23	No	Within emission limits	Soot blowing
07/28/04	6:48 PM	24	No	Within emission limits	Soot blowing
07/28/04	7:48 PM	21	No	Within emission limits	Soot blowing
07/30/04	7:48 PM	24	No	Within emission limits	Soot blowing
08/04/04	6:48 PM	21	No	Within emission limits	Soot blowing
08/08/04	2:24 AM	27	No	Within emission limits	Bypassed the economizer, element failure
08/09/04	7:48 AM	23	No	Within emission limits	Soot blowing
08/10/04	9:48 AM	26	No	Within emission limits	Soot blowing
08/10/04	12:00 PM	22	No	Within emission limits	Soot blowing
08/11/04	6:48 PM	21	No	Within emission limits	Soot blowing
08/12/04	5:48 AM	21	No	Within emission limits	Soot blowing
08/12/04	6:48 AM	23	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
08/14/04	5:54 PM	21	No	Within emission limits	Soot blowing
08/19/04	9:00 AM	22	No	Within emission limits	Soot blowing
08/19/04	10:18 PM	26	No	Within emission limits	Startup/shutdown switch to coal
08/20/04	2:06 AM	25	No	Within emission limits	Startup/shutdown co-fire tripped
08/20/04	5:06 AM	23	No	Within emission limits	Startup/shutdown change power
08/20/04	8:48 AM	21	No	Within emission limits	Soot blowing
08/20/04	10:54 AM	23	No	Within emission limits	Soot blowing
08/20/04	7:48 PM	21	No	Within emission limits	Soot blowing
08/21/04	5:54 AM	21	No	Within emission limits	Soot blowing
08/21/04	6:54 PM	23	No	Within emission limits	Soot blowing
08/22/04	6:54 PM	21	No	Within emission limits	Soot blowing
08/23/04	6:48 PM	21	No	Within emission limits	Soot blowing
08/23/04	7:47 PM	21	No	Within emission limits	Soot blowing
08/24/04	6:42 AM	22	No	Within emission limits	Soot blowing
08/24/04	8:48 AM	21	No	Within emission limits	Soot blowing
08/25/04	9:48 AM	21	No	Within emission limits	Soot blowing
08/25/04	3:30 PM	21	No	Within emission limits	Soot blowing
08/25/04	8:48 PM	22	No	Within emission limits	Soot blowing
08/26/04	6:00 AM	22	No	Within emission limits	Soot blowing
08/26/04	7:48 AM	22	No	Within emission limits	Soot blowing
08/26/04	6:54 PM	22	No	Within emission limits	Soot blowing
08/26/04	10:00 PM	21	No	Within emission limits	Soot blowing
08/27/04	12:36 PM	21	No	Within emission limits	Soot blowing
08/27/04	2:18 PM	21	No	Within emission limits	Soot blowing
08/27/04	6:48 PM	23	No	Within emission limits	Soot blowing
08/27/04	8:00 PM	23	No	Within emission limits	Soot blowing
08/28/04	6:48 AM	21	No	Within emission limits	Soot blowing
08/28/04	7:00 PM	22	No	Within emission limits	Soot blowing
08/28/04	8:54 PM	24	No	Within emission limits	Soot blowing
08/29/04	3:42 AM	21	No	Within emission limits	Soot blowing
08/29/04	5:54 AM	21	No	Within emission limits	Soot blowing
08/29/04	6:48 AM	24	No	Within emission limits	Soot blowing
08/29/04	7:54 AM	21	No	Within emission limits	Soot blowing
08/29/04	6:54 PM	21	No	Within emission limits	Soot blowing
08/29/04	7:54 PM	23	No	Within emission limits	Soot blowing
08/29/04	9:00 PM	22	No	Within emission limits	Soot blowing
08/30/04	7:00 AM	24	No	Within emission limits	Soot blowing
08/30/04	6:54 PM	22	No	Within emission limits	Soot blowing
08/30/04	7:54 PM	21	No	Within emission limits	Soot blowing
09/01/04	8:00 PM	22	No	Within emission limits	Soot blowing
09/01/04	9:53 PM	22	No	Within emission limits	Soot blowing
09/02/04	6:54 PM	23	No	Within emission limits	Soot blowing
09/02/04	7:54 PM	21	No	Within emission limits	Soot blowing
09/03/04	6:54 AM	21	No	Within emission limits	Soot blowing
09/05/04	6:48 AM	21	No	Within emission limits	Soot blowing
09/05/04	6:54 PM	22	No	Within emission limits	Soot blowing
09/05/04	7:54 PM	22	No	Within emission limits	Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
09/07/04	6:54 PM	21	No	Within emission limits	Soot blowing
09/07/04	7:54 PM	21	No	Within emission limits	Soot blowing
09/08/04	5:54 PM	21	No	Within emission limits	Soot blowing
09/11/04	7:00 PM	23	No	Within emission limits	Soot blowing
09/11/04	8:00 PM	23	No	Within emission limits	Soot blowing
09/13/04	5:54 PM	21	No	Within emission limits	Soot blowing
09/13/04	6:48 PM	21	No	Within emission limits	Soot blowing
09/15/04	6:54 PM	22	No	Within emission limits	Soot blowing
09/15/04	8:00 PM	23	No	Within emission limits	Soot blowing
09/17/04	6:54 PM	23	No	Within emission limits	Soot blowing
09/21/04	9:48 AM	23	No	Within emission limits	East stoker locked up
09/21/04	2:12 PM	25	No	Within emission limits	Soot blowing
09/21/04	5:54 PM	21	No	Within emission limits	Soot blowing
09/21/04	7:42 PM	22	No	Within emission limits	Soot blowing
09/22/04	5:54 PM	21	No	Within emission limits	Soot blowing
09/22/04	6:42 PM	23	No	Within emission limits	Soot blowing
9?24?04	6:47 PM	24	No	Within emission limits	Soot blowing
09/24/04	7:47 PM	24	No	Within emission limits	Soot blowing
09/25/04	7:41 AM	21	No	Within emission limits	Soot blowing
09/25/04	6:47 PM	23	No	Within emission limits	Soot blowing
09/25/04	7:47 PM	21	No	Within emission limits	Soot blowing
09/26/04	6:47 PM	22	No	Within emission limits	Soot blowing
09/26/04	7:47 PM	21	No	Within emission limits	Soot blowing
09/27/04	8:47 AM	21	No	Within emission limits	Soot blowing
09/29/04	7:47 PM	21	No	Within emission limits	Soot blowing
09/29/04	6:41 PM	21	No	Within emission limits	Soot blowing

# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## AIR QUALITY DIVISION

### Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity Reporting period: Third quarter, 2004

Company: Cargill Salt Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1) Total Source Operation Time 127637 min

Monitor Manufacturer, Model No., & Serial No.: Durag DR 90, #403074

#### Emission Data Summary

- |    |   |               |
|----|---|---------------|
| 1  | Duration of Excess Emissions (EE) in reporting period due to: |               |
| a. | Startup/Shutdown  | <u>66</u>     |
| b. | Soot Blowing  | <u>18</u>     |
| c. | Control Equipment Problems                                    | <u>0</u>      |
| d. | Process Problems  | <u>66</u>     |
| e. | Other Known Causes  | <u>0</u>      |
| f. | Unknown Causes  | <u>0</u>      |
| 2  | Total Durations of EE's                                       | <u>150</u>    |
| 3  | Total Duration of EE's/Total Source Operation Time X 100      | <u>0.12 %</u> |

#### CEM System Summary

- |    |   |               |
|----|---|---------------|
| 1  | CEM system downtime in reporting period due to:             |               |
| a. | Monitor Equipment Malfunctions                              | <u>0</u>      |
| b. | Non-Monitor Equipment Malfunctions                          | <u>0</u>      |
| c. | Quality Assurance Calibrations (Excess)                     | <u>18</u>     |
| d. | Other Known Causes  | <u>0</u>      |
| e. | Unknown Causes  | <u>0</u>      |
| 2  | Total CEM System Downtime                                   | <u>18</u>     |
| 3  | Total CEM System Downtime/Total Source Operation Time X 100 | <u>0.01 %</u> |

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: 

Date: 10/18/04





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MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

January 20, 2005

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

Re: Boiler No. 10 Semi-annual Emissions Report for the 2nd half of 2004

Dear Ms. Seidel:

This Semiannual Emissions Report is being submitted in accordance with the reporting requirements from the State of Michigan Renewable Operating Permit No. 199700084 Table E-01.3 EGBOILER10. Boiler No. 10 was operated using Natural Gas only during the entire reporting period. No excess emissions occurred during the semiannual reporting period of the second half of 2004. The boiler operated for 4333 hours for the second half of 2004.

The average NO<sub>x</sub> and CO<sub>2</sub> emission rates (lb/MM Btu heat input) and the 30-day average NO<sub>x</sub> emission rates (lb/MM Btu heat input) are summarized in Attachment A.

There was zero operating days when the 30-day average NO<sub>x</sub> emission rate exceeded the limit under 60.44b.

There was no emission data excluded from the calculations of average emission rates.

"F" factor is 1,040 dscf / MMBtu.

The pollutant concentrations did not exceed full span of the CEMS during the quarter.

No modifications were made to the CEM that could affect the ability of the CEMS to comply with PS 2 or 3.

Attachment B contains the daily CEMS drift test.

Attachment C contains the NO<sub>x</sub> / CO<sub>2</sub> Span gas Certificate of Analysis.

If you have any questions please call me at 810-326-2841.

Sincerely,

Wade D. Richards  
Powerhouse Superintendent

cc: EHS File  
Don Chutas  
Dan Taylor  
Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Boiler No. 10 NO<sub>x</sub> Daily Averages, Emission Data, 30-Day Average NO<sub>x</sub>  
Boiler No. 10 Daily Calibration (zero / span)  
Certificate of Analysis / EPA Protocol Gas

**Attachment A**  
**Boiler 10 Emissions Data 30-day average NOx**

Date	NOx Parts per Million	NOx Pounds per Mbtu	CO2	30-Day Average	Comments
12/31/2004	48.20	0.080	7.43	0.076	
12/30/2004	42.12	0.076	6.89	0.077	
12/29/2004	43.15	0.079	6.82	0.077	
12/28/2004	47.25	0.080	7.31	0.077	
12/27/2004	55.62	0.087	7.74	0.077	
12/26/2004	56.08	0.087	7.98	0.076	
12/25/2004	10.99	0.022	1.74	0.076	
12/24/2004	21.55	0.036	3.10	0.078	
12/23/2004	49.98	0.083	7.44	0.079	
12/22/2004	47.47	0.086	6.89	0.079	
12/21/2004	44.30	0.095	5.85	0.078	
12/20/2004	47.09	0.096	6.27	0.078	
12/19/2004	46.79	0.082	7.09	0.077	
12/18/2004	44.78	0.078	7.09	0.076	
12/17/2004	48.10	0.081	7.39	0.076	
12/16/2004	45.78	0.079	7.20	0.076	
12/15/2004	44.53	0.077	7.18	0.076	
12/14/2004	43.89	0.076	7.17	0.076	
12/13/2004	44.82	0.078	7.08	0.076	
12/12/2004	44.73	0.080	6.98	0.076	
12/11/2004	44.12	0.078	7.01	0.076	
12/10/2004	41.61	0.075	6.91	0.076	
12/9/2004	42.58	0.077	6.92	0.076	
12/8/2004	42.78	0.076	6.98	0.076	
12/7/2004	39.20	0.072	6.77	0.076	
12/6/2004	42.45	0.075	6.99	0.076	
12/5/2004	41.19	0.073	7.00	0.076	
12/4/2004	40.52	0.075	6.71	0.076	
12/3/2004	44.34	0.078	7.09	0.076	
12/2/2004	44.49	0.077	7.18	0.075	
12/1/2004	45.83	0.085	6.76	0.075	
11/30/2004	44.35	0.079	7.01	0.075	
11/29/2004	42.71	0.079	6.76	0.074	
11/28/2004	39.81	0.075	6.61	0.074	
11/27/2004	40.10	0.078	6.42	0.073	
11/26/2004	41.80	0.076	6.81	0.072	
11/25/2004	41.95	0.075	6.93	0.070	
11/24/2004	41.54	0.074	6.98	0.070	
11/23/2004	41.09	0.080	6.38	0.070	
11/22/2004	40.77	0.074	6.82	0.069	
11/21/2004	39.53	0.071	6.89	0.069	
11/20/2004	37.12	0.068	6.76	0.069	
11/19/2004	39.72	0.072	6.84	0.069	
11/18/2004	37.11	0.069	6.72	0.069	
11/17/2004	38.34	0.073	6.54	0.069	
11/16/2004	40.07	0.073	6.83	0.069	
11/15/2004	41.73	0.076	6.82	0.069	
11/14/2004	42.37	0.077	6.81	0.069	
11/13/2004	42.74	0.077	6.88	0.069	

11/12/2004	44.94	0.082	6.86	0.069	
11/11/2004	42.49	0.080	6.64	0.068	
11/10/2004	40.59	0.075	6.72	0.068	
11/9/2004	42.96	0.081	6.59	0.068	
11/8/2004	41.55	0.077	6.75	0.068	
11/7/2004	39.59	0.073	6.72	0.067	
11/6/2004	41.05	0.076	6.73	0.067	
11/5/2004	29.57	0.068	4.48	0.067	
11/4/2004	34.39	0.073	5.91	0.068	
11/3/2004	35.02	0.069	6.37	0.068	
11/2/2004	32.60	0.065	6.27	0.068	
11/1/2004	37.04	0.073	6.34	0.068	
10/31/2004	36.30	0.070	6.47	0.068	
10/30/2004	32.91	0.064	6.43	0.068	
10/29/2004	35.32	0.065	6.70	0.069	
10/28/2004	13.94	0.030	2.44	0.069	
10/27/2004	10.76	0.022	1.66	0.070	
10/26/2004	39.88	0.073	6.76	0.072	
10/25/2004	36.28	0.068	6.62	0.072	
10/24/2004	35.31	0.068	6.44	0.072	
10/23/2004	34.85	0.068	6.39	0.072	
10/22/2004	38.81	0.071	6.79	0.072	
10/21/2004	36.80	0.070	6.55	0.072	
10/20/2004	36.65	0.069	6.64	0.072	
10/19/2004	37.49	0.073	6.37	0.072	
10/18/2004	38.64	0.073	6.60	0.072	
10/17/2004	38.70	0.074	6.51	0.072	
10/16/2004	36.76	0.072	6.39	0.071	
10/15/2004	35.90	0.069	6.49	0.071	
10/14/2004	36.04	0.069	6.51	0.071	
10/13/2004	40.61	0.074	6.82	0.070	
10/12/2004	38.59	0.074	6.47	0.070	
10/11/2004	38.74	0.071	6.77	0.069	
10/10/2004	37.73	0.069	6.77	0.069	
10/9/2004	37.48	0.069	6.77	0.069	
10/8/2004	37.46	0.068	6.87	0.069	
10/7/2004	40.50	0.072	7.01	0.069	
10/6/2004	43.01	0.085	6.37	0.068	
10/5/2004	41.15	0.077	6.66	0.068	
10/4/2004	39.11	0.073	6.69	0.067	
10/3/2004	39.65	0.073	6.77	0.066	
10/2/2004	37.90	0.070	6.75	0.066	
10/1/2004	39.98	0.072	6.90	0.066	
9/30/2004	45.12	0.079	7.10	0.064	
9/29/2004	41.65	0.078	6.64	0.064	
9/28/2004	39.19	0.070	6.92	0.063	
9/27/2004	40.79	0.073	6.99	0.063	
9/26/2004	41.38	0.073	7.06	0.063	
9/25/2004	39.84	0.071	7.00	0.062	
9/24/2004	37.56	0.067	6.96	0.062	
9/23/2004	39.17	0.069	6.99	0.061	
9/22/2004	36.69	0.070	6.55	0.061	
9/21/2004	36.87	0.068	6.74	0.061	

9/20/2004	37.11	0.066	6.92	0.061	
9/19/2004	36.83	0.067	6.81	0.061	
9/18/2004	35.90	0.067	6.68	0.061	
9/17/2004	34.70	0.064	6.74	0.060	
9/16/2004	32.88	0.059	6.84	0.061	
9/15/2004	31.02	0.062	5.94	0.062	
9/14/2004	31.45	0.058	6.69	0.062	
9/13/2004	33.81	0.060	7.02	0.062	
9/12/2004	34.11	0.061	6.98	0.063	
9/11/2004	36.42	0.064	7.02	0.063	
9/10/2004	37.94	0.067	7.07	0.063	
9/9/2004	36.21	0.066	6.81	0.063	
9/8/2004	33.24	0.066	6.28	0.064	
9/7/2004	33.10	0.059	6.93	0.063	
9/6/2004	32.21	0.058	6.93	0.064	
9/5/2004	31.97	0.057	7.03	0.064	
9/4/2004	32.20	0.057	7.03	0.064	
9/3/2004	32.96	0.058	7.02	0.065	
9/2/2004	34.22	0.061	6.97	0.065	
9/1/2004	15.94	0.031	3.17	0.065	
8/31/2004	34.13	0.063	6.75	0.066	
8/30/2004	34.69	0.064	6.73	0.066	
8/29/2004	33.66	0.062	6.71	0.066	
8/28/2004	31.98	0.060	6.62	0.066	
8/27/2004	30.27	0.056	6.69	0.066	
8/26/2004	30.85	0.058	6.60	0.067	
8/25/2004	30.75	0.063	6.10	0.067	
8/24/2004	34.50	0.063	6.77	0.068	
8/23/2004	36.04	0.066	6.83	0.068	
8/22/2004	39.13	0.070	6.98	0.067	
8/21/2004	39.05	0.067	7.21	0.067	
8/20/2004	35.73	0.065	6.81	0.067	
8/19/2004	23.46	0.046	4.45	0.067	
8/18/2004	45.36	0.078	7.21	0.067	
8/17/2004	48.70	0.082	7.36	0.066	
8/16/2004	46.88	0.080	7.16	0.066	
8/15/2004	35.10	0.064	6.83	0.065	
8/14/2004	36.27	0.065	6.88	0.065	
8/13/2004	37.17	0.067	6.86	0.065	
8/12/2004	40.44	0.073	6.88	0.065	
8/11/2004	36.26	0.078	5.83	0.064	
8/10/2004	34.16	0.068	6.27	0.063	
8/9/2004	32.86	0.064	6.44	0.063	
8/8/2004	34.55	0.065	6.61	0.063	
8/7/2004	36.35	0.066	6.80	0.064	
8/6/2004	38.16	0.069	6.90	0.062	
8/5/2004	37.79	0.068	6.87	0.062	
8/4/2004	34.90	0.074	5.94	0.062	
8/3/2004	30.63	0.060	6.39	0.062	
8/2/2004	30.77	0.059	6.48	0.062	
8/1/2004	32.05	0.061	6.54	0.062	
7/31/2004	31.15	0.059	6.55	0.062	
7/30/2004	33.70	0.062	6.75	0.062	

7/29/2004	38.01	0.068	6.99	0.062	
7/28/2004	35.30	0.077	5.81	0.062	
7/27/2004	36.82	0.066	6.90	0.062	
7/26/2004	36.07	0.075	6.03	0.062	
7/25/2004	35.16	0.063	6.99	0.062	
7/24/2004	35.83	0.064	6.98	0.062	
7/23/2004	34.90	0.062	7.04	0.063	
7/22/2004	31.08	0.056	6.94	0.063	
7/21/2004	30.58	0.061	6.26	0.063	
7/20/2004	30.99	0.056	6.87	0.064	
7/19/2004	32.45	0.058	6.92	0.064	
7/18/2004	32.67	0.058	6.96	0.065	
7/17/2004	32.61	0.058	6.96	0.065	
7/16/2004	35.13	0.062	7.03	0.065	
7/15/2004	35.05	0.066	6.61	0.065	
7/14/2004	31.32	0.063	6.19	0.065	
7/13/2004	30.08	0.056	6.57	0.066	
7/12/2004	32.09	0.059	6.78	0.067	
7/11/2004	34.42	0.063	6.80	0.068	
7/10/2004	36.99	0.066	6.93	0.068	
7/9/2004	41.06	0.072	7.06	0.068	
7/8/2004	13.30	0.027	2.19	0.068	
7/7/2004	33.54	0.063	6.56	0.070	
7/6/2004	34.71	0.069	6.26	0.070	
7/5/2004	33.07	0.064	6.41	0.071	
7/4/2004	31.02	0.060	6.42	0.071	
7/3/2004	35.72	0.066	6.68	0.072	
7/2/2004	35.79	0.065	6.85	0.072	
7/1/2004	34.66	0.064	6.69	0.072	
6/30/2004	35.34	0.067	6.51	0.072	
6/29/2004	36.86	0.066	6.87	0.072	
6/28/2004	37.58	0.067	6.91	0.072	
6/27/2004	40.17	0.072	6.94	0.072	
6/26/2004	40.22	0.072	6.92	0.073	
6/25/2004	39.26	0.070	6.90	0.072	
6/24/2004	39.25	0.070	6.91	0.072	
6/23/2004	40.84	0.072	7.05	0.072	
6/22/2004	37.74	0.072	6.54	0.072	
6/21/2004	38.62	0.070	6.84	0.072	
6/20/2004	40.00	0.073	6.76	0.072	
6/19/2004	38.76	0.070	6.87	0.071	
6/18/2004	37.11	0.066	6.99	0.071	
6/17/2004	37.57	0.066	7.03	0.071	
6/16/2004	39.16	0.068	7.19	0.071	
6/15/2004	40.09	0.066	7.40	0.071	
6/14/2004	48.12	0.076	7.85	0.072	
6/13/2004	50.14	0.081	7.71	0.072	
6/12/2004	55.17	0.089	7.68	0.071	
6/11/2004	47.52	0.079	7.48	0.070	
6/10/2004	43.07	0.072	7.45	0.070	
6/9/2004	38.31	0.064	7.39	0.070	
6/8/2004	40.94	0.069	7.38	0.070	

6/7/2004	46.01	0.077	7.40	0.070	
6/6/2004	53.52	0.089	7.43	0.070	
6/5/2004	45.63	0.080	6.67	0.069	
6/4/2004	39.28	0.071	6.90	0.069	
6/3/2004	39.42	0.070	6.97	0.070	
6/2/2004	34.76	0.070	6.15	0.070	
6/1/2004	35.02	0.067	6.48	0.070	

**Attachment B**  
**Boiler 10 NOx Daily Calibrations**

<b>Date</b>	<b>NOx Parts per Million</b>		<b>CO2</b>	
	<b>Zero</b>	<b>Span</b>	<b>Zero</b>	<b>Span</b>
12/31/2004	0.12	54.65	0.16	11.20
12/30/2004	0.13	55.40	0.13	11.34
12/29/2004	0.14	55.52	0.15	11.34
12/28/2004	0.11	56.21	0.13	11.49
12/27/2004	0.11	56.97	0.08	11.70
12/26/2004	0.12	55.98	0.29	11.58
12/25/2004	0.06	54.58	0.15	11.10
12/24/2004	0.11	56.03	0.08	11.35
12/23/2004	0.14	54.81	0.11	11.02
12/22/2004	0.14	54.85	0.16	11.18
12/21/2004	0.10	54.16	0.17	10.84
12/20/2004	0.09	55.74	0.01	11.20
12/19/2004	0.11	55.36	0.02	11.04
12/18/2004	0.16	55.26	0.12	11.14
12/17/2004	0.15	55.94	0.09	11.39
12/16/2004	0.14	55.50	0.10	11.25
12/15/2004	0.15	56.15	0.07	11.43
12/14/2004	0.14	55.90	0.08	11.32
12/13/2004	0.16	54.40	0.10	10.79
12/12/2004	0.16	54.78	0.10	10.95
12/11/2004	0.17	54.29	0.12	10.86
12/10/2004	0.18	54.43	0.12	10.93
12/9/2004	0.19	54.94	0.13	11.20
12/8/2004	0.19	54.85	0.13	11.22
12/7/2004	0.16	54.73	0.13	11.02
12/6/2004	0.15	55.11	0.09	11.14
12/5/2004	0.19	55.26	0.12	11.27
12/4/2004	0.18	54.65	0.11	11.05
12/3/2004	0.18	54.76	0.12	11.13
12/2/2004	0.19	55.31	0.12	11.27
12/1/2004	0.18	54.18	0.11	10.80
11/30/2004	0.19	54.84	0.11	11.23
11/29/2004	0.18	55.24	0.11	11.34
11/28/2004	0.18	54.21	0.13	10.93
11/27/2004	0.17	54.44	0.12	11.07
11/26/2004	0.18	54.98	0.11	11.14
11/25/2004	0.14	54.58	0.09	10.84
11/24/2004	0.19	54.91	0.13	11.13
11/23/2004	0.19	54.46	0.14	11.09
11/22/2004	0.19	55.05	0.12	11.27
11/21/2004	0.15	55.27	0.12	11.36
11/20/2004	0.16	54.69	0.13	11.15
11/19/2004	0.15	55.21	0.14	11.33
11/18/2004	0.17	54.90	0.13	11.25
11/17/2004	0.17	55.05	0.16	11.37
11/16/2004	0.21	55.50	0.19	11.52
11/15/2004	0.21	56.17	0.18	11.65



11/14/2004	0.20	56.57	0.16	11.75
11/13/2004	0.20	56.08	0.14	11.59
11/12/2004	0.20	55.50	0.14	11.39
11/11/2004	0.21	55.16	0.16	11.33
11/10/2004	0.21	55.37	0.16	11.40
11/9/2004	0.20	55.74	0.16	11.51
11/8/2004	0.21	55.35	0.15	11.36
11/7/2004	0.20	54.44	0.14	10.96
11/6/2004	0.29	54.49	0.16	11.00
11/5/2004	0.00	46.61	0.00	10.81
11/4/2004	0.00	46.46	0.01	10.76
11/3/2004	0.00	47.34	0.01	11.20
11/2/2004	0.00	46.81	0.05	10.90
11/1/2004	0.00	53.59	0.04	11.06
10/31/2004	0.00	52.87	0.01	10.70
10/30/2004	0.00	52.61	0.03	10.58
10/29/2004	0.00	53.23	0.06	10.93
10/28/2004	0.00	52.92	0.02	10.91
10/27/2004	0.00	53.25	0.03	10.97
10/26/2004	0.00	53.92	0.03	11.11
10/25/2004	0.00	53.39	0.04	10.97
10/24/2004	0.00	52.91	0.02	10.74
10/23/2004	0.00	53.38	0.03	11.00
10/22/2004	0.00	53.89	0.05	11.16
10/21/2004	0.00	53.60	0.07	11.08
10/20/2004	0.00	53.52	0.04	11.00
10/19/2004	0.00	52.87	0.05	10.88
10/18/2004	0.00	53.38	0.06	11.01
10/17/2004	0.00	52.65	0.01	10.64
10/16/2004	0.00	52.20	0.01	10.43
10/15/2004	0.00	52.41	0.02	10.46
10/14/2004	0.00	52.91	0.00	10.50
10/12/2004	0.00	54.00	0.00	10.88
10/11/2004	0.00	54.45	0.00	11.05
10/10/2004	0.00	54.53	0.00	11.06
10/9/2004	0.00	53.57	0.03	10.98
10/8/2004	0.00	54.17	0.01	11.13
10/7/2004	0.00	54.67	0.01	11.26
10/6/2004	0.00	54.10	0.00	10.97
10/5/2004	0.00	54.86	0.00	11.11
10/4/2004	0.00	53.66	0.00	10.82
10/3/2004	0.00	54.42	0.00	10.99
10/2/2004	0.00	53.37	0.00	10.87
10/1/2004	0.00	54.22	0.00	10.99
9/30/2004	0.00	54.18	0.00	10.96
9/29/2004	0.00	53.31	0.00	10.85
9/28/2004	0.00	53.68	0.01	10.95
9/27/2004	0.00	53.98	0.00	11.03
9/26/2004	0.00	54.11	0.00	11.14
9/25/2004	0.00	54.11	0.00	11.03
9/24/2004	0.00	54.19	0.00	11.06

9/23/2004	0.00	54.37	0.00	11.13
9/22/2004	0.00	53.52	0.00	11.04
9/21/2004	0.00	53.65	0.00	11.15
9/20/2004	0.00	53.96	0.00	11.19
9/19/2004	0.00	53.76	0.00	11.18
9/18/2004	0.00	53.33	0.00	10.97
9/17/2004	0.00	52.73	0.03	11.03
9/16/2004	0.00	52.45	0.07	11.02
9/15/2004	0.00	52.31	0.07	11.03
9/14/2004	0.00	52.97	0.04	11.17
9/13/2004	0.00	53.02	0.07	11.26
9/12/2004	0.00	53.03	0.03	11.10
9/11/2004	0.00	53.40	0.02	11.21
9/10/2004	0.00	53.40	0.00	11.11
9/9/2004	0.00	51.98	0.03	10.85
9/8/2004	0.00	52.01	0.05	11.03
9/7/2004	0.00	52.40	0.07	11.09
9/6/2004	0.00	52.47	0.07	11.14
9/5/2004	0.00	52.77	0.08	11.26
9/4/2004	0.00	52.75	0.07	11.23
9/3/2004	0.00	52.85	0.05	11.19
9/2/2004	0.00	52.69	0.02	11.20
9/1/2004	0.00	52.99	0.00	10.97
8/31/2004	0.00	53.07	0.00	10.99
8/30/2004	0.00	52.90	0.00	10.93
8/29/2004	0.00	52.75	0.00	10.81
8/28/2004	0.00	52.99	0.00	10.85
8/27/2004	0.00	52.97	0.00	10.86
8/26/2004	0.00	53.01	0.00	10.87
8/25/2004	0.00	52.50	0.00	10.71
8/24/2004	0.00	53.07	0.00	10.97
8/23/2004	0.00	52.96	0.00	10.81
8/22/2004	0.00	53.07	0.00	10.93
8/21/2004	0.00	52.98	0.00	10.87
8/20/2004	0.00	52.78	0.01	10.87
8/19/2004	0.00	52.96	0.00	10.79
8/18/2004	0.00	53.14	0.00	10.89
8/17/2004	0.00	53.50	0.01	11.13
8/16/2004	-0.07	53.28	0.01	11.16
8/15/2004	0.00	53.23	0.01	11.14
8/14/2004	0.00	53.12	0.00	11.04
8/13/2004	0.00	52.73	0.00	10.89
8/12/2004	0.00	52.92	0.00	10.92
8/11/2004	0.00	51.59	0.00	10.65
8/10/2004	0.00	52.25	0.00	10.64
8/9/2004	0.00	52.94	0.00	10.91
8/8/2004	0.00	52.78	0.01	10.99
8/7/2004	0.00	52.84	0.00	10.94
8/6/2004	0.00	52.94	0.00	11.00
8/5/2004	0.00	52.67	0.01	10.94
8/4/2004	0.00	51.89	0.00	10.58

8/3/2004	0.00	52.57	0.00	10.76
8/2/2004	0.00	52.66	0.00	10.87
8/1/2004	0.00	52.92	0.00	10.89
7/31/2004	0.00	52.39	0.00	10.71
7/30/2004	0.00	52.78	0.00	10.83
7/29/2004	0.00	53.07	0.00	10.94
7/28/2004	0.00	51.78	0.00	10.76
7/27/2004	0.00	52.77	0.00	10.89
7/26/2004	0.00	51.70	0.06	11.04
7/25/2004	0.00	52.55	0.06	11.31
7/24/2004	0.00	52.43	0.01	11.21
7/23/2004	0.00	51.58	0.12	11.19
7/22/2004	0.00	51.23	0.14	11.10
7/21/2004	0.00	50.85	0.17	11.09
7/20/2004	0.00	51.12	0.11	11.05
7/19/2004	0.00	51.21	0.09	11.04
7/18/2004	0.00	51.46	0.09	11.10
7/17/2004	0.00	51.10	0.11	11.09
7/16/2004	0.00	50.83	0.06	10.92
7/15/2004	0.00	49.92	0.05	10.67
7/14/2004	0.00	49.38	0.12	10.81
7/13/2004	0.33	52.90	0.12	10.98
7/12/2004	0.21	53.14	0.10	10.99
7/11/2004	0.05	53.92	0.05	11.04
7/10/2004	0.05	53.95	0.05	11.07
7/9/2004	0.05	53.85	0.02	10.94
7/8/2004	0.03	52.55	0.04	10.67
7/7/2004	0.04	52.90	0.06	10.75
7/6/2004	0.04	53.21	0.01	10.71
7/5/2004	0.05	52.76	0.06	10.76
7/4/2004	0.05	52.72	0.06	10.74
7/3/2004	0.04	53.42	0.06	10.98
7/2/2004	0.04	53.64	0.08	11.09
7/1/2004	0.04	53.47	0.07	11.00
6/30/2004	0.03	53.45	0.05	10.98
6/29/2004	0.04	53.64	0.04	10.98
6/28/2004	0.05	53.50	0.06	11.00
6/27/2004	0.03	53.65	0.02	10.98
6/26/2004	0.03	53.47	0.02	10.93
6/25/2004	0.03	53.88	0.01	10.97
6/24/2004	0.04	52.89	0.05	10.84
6/23/2004	0.03	53.27	0.03	10.92
6/22/2004	0.02	52.15	0.04	10.59
6/21/2004	0.02	53.05	0.03	10.83
6/20/2004	0.01	53.96	0.00	10.84
6/19/2004	0.02	53.41	0.06	11.03
6/18/2004	0.02	53.31	0.07	10.95
6/17/2004	0.03	53.19	0.09	10.96
6/16/2004	0.03	53.44	0.09	11.11
6/15/2004	5.05	5.05	0.88	0.88
6/15/2004	5.05	53.37	0.88	11.03
6/15/2004	0.02	5.05	0.12	0.88

6/15/2004	0.02	53.37	0.12	11.03
6/14/2004	0.03	53.33	0.04	10.90
6/13/2004	0.03	53.27	0.05	10.97
6/12/2004	0.02	53.82	0.05	11.07
6/11/2004	0.02	53.24	0.05	10.92
6/10/2004	0.03	53.26	0.11	11.04
6/9/2004	0.02	53.29	0.05	11.00
6/8/2004	0.02	53.58	0.02	10.99
6/7/2004	0.03	53.32	0.05	11.04
6/6/2004	0.03	53.56	0.01	10.95
6/5/2004	0.01	53.44	0.00	10.92
6/4/2004	0.01	53.82	0.00	11.01
6/3/2004	0.01	53.64	0.00	10.90
6/2/2004	0.02	52.11	0.05	10.67
6/1/2004	0.01	52.08	0.01	10.50

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx  
Diluent: O2

Reporting period: Second half of 2004

Company: Cargill Salt

Unit Description:

Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmBtu 30 day aver Total Source Operation Time 4,333 hours

Monitor Manufacturer, Model No., & Serial No.: Thermo Env, # 42H Cheniluminescence, SN

**Emission Data Summary**

1 Duration of Excess Emissions (EE) in reporting period due to:

a.	Startup/Shutdown	<u>0</u>
b.	Soot Blowing	<u>0</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>0</u>
e.	Other Known Causes	<u>0</u>
f.	Unknown Causes	<u>0</u>

2 Total Durations of EE's

3 Total Duration of EE's/Total Source Operation Time X 100 0 %

**CEM System Summary**

1 CEM system downtime in reporting period due to:

a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>0</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>

2 Total CEM System Downtime 0

3 Total CEM System Downtime/Total Source Operation Time X 100 0 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: 

Date: 1/20/05



Praxair Distribution, Inc.  
145 Shimersville Road  
Bethlehem, PA 18015  
Tel: (610) 691-2474  
Fax: (610) 758-9103

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 181346-00

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 24.9PPM GMIS VS.	1683B	CAL-013256	48.74PPM
CARBON DIOXIDE 17.13% GMIS VS.	2745	CAL-010471	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	NITRIC OXIDE 24.9PPM GMIS VS	ANALYZER MAKE-MODEL-S/N	TECO MODEL 42C 42CHL-55533-304
ANALYTICAL PRINCIPLE	CHEMILUMINESCENCE	LAST CALIBRATION DATE	04/30/03
FIRST ANALYSIS DATE	04/28/03	SECOND ANALYSIS DATE	05/05/03
Z 0.0 R 24.8 C 23.5 CONC. 23.5		Z 0.0 R 24.9 C 23.6 CONC. 23.5	
R 25.0 Z 0.0 C 23.6 CONC. 23.6		R 25.0 Z 0.0 C 23.9 CONC. 23.8	
Z 0.0 C 23.5 R 25.0 CONC. 23.5		Z 0.0 C 24.0 R 25.0 CONC. 23.8	
U/M PPM	MEAN TEST ASSAY 23.5	U/M PPM	MEAN TEST ASSAY 23.7
2. COMPONENT	CARBON DIOXIDE 17.13% GMIS VS	ANALYZER MAKE-MODEL-S/N	SIEMENS ULTRAMAT 5E SN: D2-412
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	03/31/03
FIRST ANALYSIS DATE	04/28/03	SECOND ANALYSIS DATE	
Z 0.00 R 17.14 C 5.76 CONC. 5.76		Z R C CONC.	
R 17.14 Z 0.00 C 5.74 CONC. 5.74		R Z C CONC.	
Z 0.00 C 5.74 R 17.14 CONC. 5.74		Z C R CONC.	
U/M %	MEAN TEST ASSAY 5.74	U/M %	MEAN TEST ASSAY

VALUES NOT VALID BELOW 150 PSIG; BALANCE:NITROGEN  
UNCERTAINTIES:NO±0.3PPM, CO2±0.05%

THIS CYLINDER NO. SA13188  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 05/05/03  
EXPIRATION DATE 05/05/05 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 23.6PPM  
CARBON DIOXIDE 5.74%  
NITROGEN BALANCE  
NOX (FOR REFERENCE ONLY) 23.6PPM

ANALYZED BY

JOE HORWATH

CERTIFIED BY & REVIEWED BY-JM  
DATE-5/7/03



Praxair Distribution, Inc.  
145 Shimersville Road  
Bethlehem, PA 18015

Installed 01/21/04

Tel: (610) 691-2474  
Fax: (610) 758-9103

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 315123-1

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 75.6PPM GMIS VS	1684B	CAL-013591	97.8PPM
11.11% CARBON DIOXIDE GMIS VS	2745	CAL-010433	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	NITRIC OXIDE 75.6PPM GMIS VS	ANALYZER MAKE-MODEL-S/N	TECO MODEL 42C 42CH-57352-312
ANALYTICAL PRINCIPLE	Chemiluminescence	LAST CALIBRATION DATE	11/30/03
FIRST ANALYSIS DATE	12/16/03	SECOND ANALYSIS DATE	12/23/03
Z 0.0	R 75.5	C 54.6	CONC. 54.6
R 75.6	Z 0.0	C 54.6	CONC. 54.6
Z 0.0	C 54.6	R 75.5	CONC. 54.6
U/M PPM	MEAN TEST ASSAY	54.6	U/M PPM
2. COMPONENT	11.11% CARBON DIOXIDE GMIS VS	ANALYZER MAKE-MODEL-S/N	HORIBA VIA 510, S/N 576979023
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	11/30/03
FIRST ANALYSIS DATE	12/16/03	SECOND ANALYSIS DATE	
Z 0.00	R 11.11	C 10.92	CONC. 10.95
R 11.08	Z 0.00	C 10.90	CONC. 10.93
Z 0.00	C 10.90	R 11.05	CONC. 10.93
U/M %	MEAN TEST ASSAY	10.94	U/M %

VALUES NOT VALID BELOW 150 PSIG; BALANCE:NITROGEN

UNCERTAINTIES:NO±0.5PPM,CO2±0.06%

THIS CYLINDER NO. SA19129  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 12/23/03  
EXPIRATION DATE 12/23/05 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 54.6PPM  
CARBON DIOXIDE 10.94%  
NITROGEN BALANCE  
NOx (FOR REFERENCE ONLY) 54.6PPM

ANALYZED BY

JOSH FINCKE

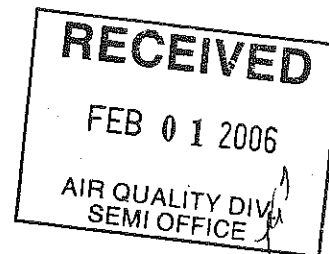
CERTIFIED BY JF 12-29-03



RECEIVED

MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5



CSE  
AG240  
Orange

January 26, 2005

Ms. Teresa Seidel  
Air Quality Division  
Michigan Department of Environmental Quality  
27700 Donald Court  
Warren, MI 48092-2793

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 4<sup>th</sup> quarter 2005

Dear Ms. Seidel:

This EER is being submitted in accordance with the quarterly reporting requirements of 40 CFR 60.7(c) and (d). Attached is a summary utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 4<sup>th</sup> quarter, Boiler No. 5 operated within the opacity emission 99.9% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill had no unscheduled shutdowns this quarter. Cargill Salt, St. Clair has identified three main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

Cause

Corrective Action Taken or Preventative Measure Adopted

Process problems  
(48%) 11 Occurrences

Six of these occurrences were attributed from fine coal.

Four of these occurrences happened when the west stoker plugged up with fines.

One of these occurrences was from the east stoker quitting

Soot blowing  
(39%) 9 Occurrences

There were nine soot-blowing exceedences during the quarter.



Other known causes  
(13%) 3 Occurrences

Two excursions were from a change in electrical load for our AC generator.

One excursion was from a PM of our FD fan controls. The controller was not properly isolated and caused the damper to close then open. The problem was noticed immediately and corrected.

If you have any questions please call me at 810-326-2841.

Sincerely,



Brandon Pretzsch  
Powerhouse Supervisor

cc: Don Chutas  
Tony Hodny  
EHS File

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler  
Table 1 – Opacity Excursions  
Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)  
Table 3 – CEM System Summary

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	10/03/05	2:35 PM	21.2	Process problems	process problems west stoker plug w/ fines
2	10/03/05	2:41 PM	20.9	Process problems	process problems west stoker plug w/ fines
3	10/03/05	2:59 PM	29.0	Process problems	process problems west stoker plug w/ fines
4	10/03/05	3:05 PM	21.9	Process problems	process problems west stoker plug w/ fines
5	10/11/05	7:23 AM	21.2	Other known causes	Electrical load changed
6	10/17/05	7:59 AM	20.8	Other known causes	High load - air dryer
7	10/18/05	7:30 AM	20.7	Process problems	Fine coal
8	10/24/05	6:29 AM	23.2	Process problems	fines in coal
9	10/24/05	6:35 AM	25.7	Process problems	Fines in coal
10	11/09/05	9:59 AM	21.3	Process problems	Bad coal
11	11/09/05	10:05 AM	22.2	Process problems	Bad coal
12	11/21/05	9:47 PM	22.0	Process problems	bad coal
13	11/27/05	6:53 PM	25.6	Process problems	East stoker quit
14	12/03/05	7:05 AM	26.8	Soot blowing	Soot blowing
15	12/06/05	7:17 AM	28.1	Soot blowing	Soot blowing
16	12/11/05	6:05 AM	21.3	Soot blowing	Soot blowing
17	12/13/05	8:29 AM	33.3	Other known causes	Total PM of FD Fan - actually moved damper
18	12/16/05	7:05 AM	26.7	Soot blowing	Soot blowing
19	12/19/05	7:05 AM	22.5	Soot blowing	Soot blowing
20	12/20/05	6:59 AM	27.0	Soot blowing	Soot blowing
21	12/27/05	6:59 AM	27.2	Soot blowing	Soot blowing
22	12/27/05	7:35 AM	32.6	Soot blowing	Soot blowing
23	12/27/05	7:41 AM	31.7	Soot blowing	Soot blowing

**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
10/03/05	2:23 PM	21.4	No	Within emission limits	process problems west stoker plug w/ fines
10/05/05	6:53 AM	20.7	No	Within emission limits	Soot blowing
10/10/05	5:53 AM	23.4	No	Within emission limits	Soot blowing
10/10/05	8:29 AM	21.9	No	Within emission limits	Soot blowing
10/10/05	9:59 AM	21	No	Within emission limits	Shaky Ops
10/10/05	11:36 AM	26.8	No	Within emission limits	Co-fire tripped
10/10/05	12:59 PM	21.2	No	Within emission limits	High load - Injection pump on
10/10/05	5:41 PM	23.1	No	Within emission limits	Soot blowing
10/11/05	7:17 AM	20.6	No	Within emission limits	Electrical load changed
10/18/05	7:24 AM	21.3	No	Within emission limits	Fine coal, air dryer
10/21/05	6:47 PM	21.3	No	Within emission limits	Soot blowing
10/24/05	5:41 AM	21.9	No	Within emission limits	Soot blowing
11/01/05	8:35 AM	23.3	No	Within emission limits	Soot blowing
11/03/05	8:53 AM	20.6	No	Within emission limits	Soot blowing
11/04/05	2:23 PM	20.9	No	Within emission limits	Soot blowing
11/08/05	1:29 AM	21.1	No	Within emission limits	Bad coal
11/09/05	9:05 AM	21.1	No	Within emission limits	Bad coal
11/09/05	9:17 AM	21.3	No	Within emission limits	Bad coal
11/13/05	5:53 AM	20.6	No	Within emission limits	Soot blowing
11/16/05	10:29 AM	25.5	No	Within emission limits	Bad coal
11/17/05	7:17 AM	21.1	No	Within emission limits	Soot blowing
11/17/05	3:23 PM	20.5	No	Within emission limits	bad coal
11/20/05	8:17 AM	23.1	No	Within emission limits	Soot blowing
11/20/05	12:29 PM	21.7	No	Within emission limits	Back washed DEVP condenser pump - low load
11/21/05	5:47 AM	20.7	No	Within emission limits	soot blowing
11/21/05	9:41 PM	20.9	No	Within emission limits	bad coal
11/22/05	1:11 AM	22	No	Within emission limits	bad coal
11/22/05	5:54 AM	20.7	No	Within emission limits	Soot blowing
11/23/05	5:47 PM	21.2	No	Within emission limits	Soot blowing
11/24/05	5:47 AM	23	No	Within emission limits	Soot blowing
11/26/05	5:59 PM	20.6	No	Within emission limits	Soot blowing
11/27/05	5:47 AM	20.8	No	Within emission limits	Soot blowing
11/27/05	6:11 PM	26.8	No	Within emission limits	East Stoker quit
11/28/05	5:53 AM	20.8	No	Within emission limits	Soot blowing
11/29/05	6:53 PM	22.6	No	Within emission limits	Soot blowing
11/29/05	9:47 PM	22.1	No	Within emission limits	Soot blowing
11/30/05	7:41 AM	21	No	Within emission limits	Soot blowing
11/30/05	6:35 PM	21.3	No	Within emission limits	Soot blowing
12/01/05	5:47 AM	20.9	No	Within emission limits	Soot blowing
12/01/05	7:47 AM	20.6	No	Within emission limits	Soot blowing
12/01/05	8:53 AM	21.3	No	Within emission limits	Soot blowing
12/01/05	5:47 PM	20.9	No	Within emission limits	Soot blowing
12/01/05	7:35 PM	20.5	No	Within emission limits	Soot blowing
12/02/05	1:17 AM	21	No	Within emission limits	Fine coal
12/02/05	5:47 AM	23	No	Within emission limits	Soot blowing
12/02/05	8:53 AM	21.7	No	Within emission limits	Fine coal
12/02/05	5:47 PM	21.6	No	Within emission limits	Soot blowing

**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
12/02/05	7:35 PM	22.8	No	Within emission limits	Soot blowing
12/02/05	8:47 PM	21.1	No	Within emission limits	Soot blowing
12/03/05	5:53 AM	23.8	No	Within emission limits	Soot blowing
12/03/05	6:59 AM	24.8	No	Within emission limits	Soot blowing
12/03/05	6:11 PM	21.5	No	Within emission limits	Soot blowing
12/04/05	5:47 AM	21.4	No	Within emission limits	Soot blowing
12/04/05	5:47 PM	21.7	No	Within emission limits	Soot blowing
12/05/05	6:53 AM	20.5	No	Within emission limits	Soot blowing
12/05/05	5:47 PM	21.8	No	Within emission limits	Soot blowing
12/05/05	6:53 PM	22.5	No	Within emission limits	Soot blowing
12/05/05	8:05 PM	20.9	No	Within emission limits	Soot blowing
12/06/05	6:05 PM	22	No	Within emission limits	Soot blowing
12/06/05	7:11 PM	20.9	No	Within emission limits	Soot blowing
12/07/05	5:53 AM	23.3	No	Within emission limits	Soot blowing
12/07/05	6:53 AM	21.4	No	Within emission limits	Soot blowing
12/08/05	5:53 AM	22.6	No	Within emission limits	Soot blowing
12/08/05	6:53 AM	23.8	No	Within emission limits	Soot blowing
12/08/05	5:53 PM	22.7	No	Within emission limits	Soot blowing
12/08/05	7:35 PM	21.8	No	Within emission limits	Soot blowing
12/09/05	5:53 AM	23.1	No	Within emission limits	Soot blowing
12/09/05	6:59 AM	21.4	No	Within emission limits	Soot blowing
12/09/05	7:35 PM	23.8	No	Within emission limits	Soot blowing
12/09/05	8:47 PM	21.9	No	Within emission limits	Soot blowing
12/10/05	5:53 PM	21.2	No	Within emission limits	Soot blowing
12/10/05	7:35 PM	23.5	No	Within emission limits	Soot blowing
12/10/05	8:47 PM	21.6	No	Within emission limits	Soot blowing
12/11/05	5:59 AM	25	No	Within emission limits	Soot blowing
12/11/05	7:29 AM	25.5	No	Within emission limits	Soot blowing
12/11/05	9:05 AM	22.6	No	Within emission limits	Soot blowing
12/11/05	5:59 PM	21.4	No	Within emission limits	Soot blowing
12/12/05	5:59 AM	23.7	No	Within emission limits	Soot blowing
12/12/05	7:29 AM	22.4	No	Within emission limits	Soot blowing
12/12/05	5:59 PM	23.7	No	Within emission limits	Soot blowing
12/12/05	7:05 PM	24.4	No	Within emission limits	Soot blowing
12/12/05	8:17 PM	20.9	No	Within emission limits	Soot blowing
12/13/05	5:53 AM	21.2	No	Within emission limits	Soot blowing
12/13/05	7:17 AM	22.1	No	Within emission limits	Soot blowing
12/14/05	5:53 AM	20.8	No	Within emission limits	Soot blowing
12/14/05	5:53 PM	21.6	No	Within emission limits	Soot blowing
12/15/05	5:53 AM	23.3	No	Within emission limits	Soot blowing
12/15/05	6:53 AM	23.2	No	Within emission limits	Soot blowing
12/15/05	5:53 PM	21.3	No	Within emission limits	Soot blowing
12/15/05	7:35 PM	24.8	No	Within emission limits	Soot blowing
12/15/05	8:47 PM	20.9	No	Within emission limits	Soot blowing
12/16/05	5:47 AM	20.6	No	Within emission limits	Soot blowing
12/16/05	6:53 AM	23.9	No	Within emission limits	Soot blowing
12/16/05	8:11 AM	20.8	No	Within emission limits	Soot blowing

**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
12/16/05	5:47 PM	20.8	No	Within emission limits	Soot blowing
12/16/05	7:35 PM	23.2	No	Within emission limits	Soot blowing
12/16/05	9:53 PM	24.4	No	Within emission limits	Coal build in front of boiler
12/17/05	5:53 PM	22.1	No	Within emission limits	Soot blowing
12/17/05	7:35 PM	20.8	No	Within emission limits	Soot blowing
12/17/05	8:47 PM	22.3	No	Within emission limits	Soot blowing
12/18/05	5:53 AM	23.9	No	Within emission limits	Soot blowing
12/18/05	8:11 AM	21.9	No	Within emission limits	Soot blowing
12/19/05	5:53 AM	23.2	No	Within emission limits	Soot blowing
12/19/05	6:59 AM	22.3	No	Within emission limits	Soot blowing
12/19/05	5:59 PM	23.3	No	Within emission limits	Soot blowing
12/19/05	7:11 PM	20.5	No	Within emission limits	Soot blowing
12/20/05	5:53 AM	24.2	No	Within emission limits	Soot blowing
12/20/05	8:11 AM	25.6	No	Within emission limits	Soot blowing
12/20/05	5:59 PM	22.1	No	Within emission limits	Soot blowing
12/20/05	7:05 PM	20.9	No	Within emission limits	Soot blowing
12/21/05	5:53 AM	21.2	No	Within emission limits	Soot blowing
12/21/05	7:35 AM	23.9	No	Within emission limits	west stoker grate sproket skipping
12/21/05	5:53 PM	22	No	Within emission limits	Soot blowing
12/21/05	6:53 PM	23.8	No	Within emission limits	Soot blowing
12/22/05	5:53 AM	22	No	Within emission limits	Soot blowing
12/22/05	8:17 PM	20.9	No	Within emission limits	Soot blowing
12/23/05	5:53 AM	22.7	No	Within emission limits	Soot blowing
12/23/05	6:53 AM	22.4	No	Within emission limits	Soot blowing
12/23/05	5:53 PM	22	No	Within emission limits	Soot blowing
12/23/05	8:23 PM	22	No	Within emission limits	Soot blowing
12/23/05	9:35 PM	21.9	No	Within emission limits	Soot blowing
12/24/05	5:47 AM	21.6	No	Within emission limits	Soot blowing
12/24/05	6:53 AM	22.1	No	Within emission limits	Soot blowing
12/24/05	5:53 PM	23.7	No	Within emission limits	Soot blowing
12/24/05	8:05 PM	23.4	No	Within emission limits	Soot blowing
12/24/05	9:17 PM	21.3	No	Within emission limits	Soot blowing
12/25/05	5:53 AM	24.2	No	Within emission limits	Soot blowing
12/25/05	6:53 AM	22.8	No	Within emission limits	Soot blowing
12/25/05	5:47 PM	21.7	No	Within emission limits	Soot blowing
12/25/05	7:17 PM	20.8	No	Within emission limits	Soot blowing
12/26/05	5:53 AM	21.7	No	Within emission limits	Soot blowing
12/26/05	6:53 AM	21.9	No	Within emission limits	Soot blowing
12/26/05	5:53 PM	23.9	No	Within emission limits	Soot blowing
12/26/05	7:11 PM	21.3	No	Within emission limits	Soot blowing
12/27/05	5:53 AM	23.5	No	Within emission limits	Soot blowing
12/27/05	8:17 AM	21.2	No	Within emission limits	Soot blowing
12/27/05	5:53 PM	21.3	No	Within emission limits	Soot blowing
12/27/05	8:11 PM	22.3	No	Within emission limits	Soot blowing
12/28/05	5:53 AM	23.4	No	Within emission limits	Soot blowing
12/28/05	6:59 PM	22.8	No	Within emission limits	Soot blowing
12/29/05	5:53 AM	23.3	No	Within emission limits	Soot blowing

**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
12/29/05	6:53 AM	21.9	No	Within emission limits	Soot blowing
12/29/05	5:53 PM	23.4	No	Within emission limits	Soot blowing
12/29/05	6:59 PM	21	No	Within emission limits	Soot blowing
12/30/05	5:53 AM	24.2	No	Within emission limits	Soot blowing
12/30/05	6:59 AM	24.5	No	Within emission limits	Soot blowing
12/30/05	6:17 PM	21.2	No	Within emission limits	Soot blowing
12/31/05	6:53 AM	22	No	Within emission limits	Soot blowing
12/31/05	8:11 AM	21.1	No	Within emission limits	Soot blowing
12/31/05	10:47 PM	21.4	No	Within emission limits	Soot blowing

**Table 3 - CEM System Summary**

Date	Time	Boiler 5 Opacity	Comment	Comment Detail
11/29/05	10:17 AM	56.8	Quality assurance Calibrations (Excess)	Monitoring Soln Quarterly Calibration
11/29/05	10:23 AM	54.2	Quality assurance Calibrations (Excess)	Monitoring Soln Quarterly Calibration
11/29/05	10:35 AM	26.0	Quality assurance Calibrations (Excess)	Monitoring Soln Quarterly Calibration
11/29/05	10:41 AM	26.7	Quality assurance Calibrations (Excess)	Monitoring Soln Quarterly Calibration
11/29/05	10:47 AM	26.0	Quality assurance Calibrations (Excess)	Monitoring Soln Quarterly Calibration
11/29/05	10:53 AM	26.3	Quality assurance Calibrations (Excess)	Monitoring Soln Quarterly Calibration
11/29/05	10:59 AM	21.4	Quality assurance Calibrations (Excess)	Monitoring Soln Quarterly Calibration

# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## AIR QUALITY DIVISION

### Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity

Reporting period: Fourth quarter, 2005

Company: Cargill Salt

Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1)

Total Source Operation Time 132480 min

Monitor Manufacturer, Model No., & Serial No.:

Durag DR 90, #403074

#### Emission Data Summary

1	Duration of Excess Emissions (EE) in reporting period due to (minutes):	
a.	Startup/Shutdown	<u>0</u>
b.	Soot Blowing	<u>54</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>66</u>
e.	Other Known Causes	<u>18</u>
f.	Unknown Causes	<u>0</u>
2	Total Durations of EE's	<u>138</u>
3	Total Duration of EE's/Total Source Operation Time X 100	<u>0.10 %</u>

#### CEM System Summary

1	CEM system downtime in reporting period due to (minutes):	
a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>42</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>
2	Total CEM System Downtime	<u>42</u>
3	Total CEM System Downtime/Total Source Operation Time X 100	<u>0.03 %</u>

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: \_\_\_\_\_

Date: 12/06





JV  
ORANGE

**RECEIVED**  
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**RECEIVED**  
MAY 03 2005  
AIR QUALITY DIV.  
SEMI OFFICE

April 28, 2005

Ms. Teresa Seidel  
District Supervisor  
MDEQ Air Quality Division  
SE Michigan District Headquarters  
38980 West Seven Mile Road  
Livonia, MI 48152-1006

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 1<sup>st</sup> quarter 2005  
Boiler #10 hours of operation for 1<sup>st</sup> quarter 2005

Dear Ms. Seidel:

#10 Boiler operated for 128770 minutes or 2146 hours and 10 minutes for the 1<sup>st</sup> quarter of 2005.

This EER is being submitted in accordance with the quarterly reporting requirements of 40 CFR 60.7(c) and (d). Attached is a summary utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 1st quarter, Boiler No. 5 operated within the opacity emission 99.27% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill had one unscheduled shutdown this quarter. Cargill Salt, St. Clair submitted a written report for Air Pollution Control Rule 336.1912 on January 19, 2005. Please reference this letter for details. The main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

<u>Cause</u>	<u>Corrective Action Taken or Preventative Measure Adopted</u>
Process problems (81%) 128 Occurrences	125 of these occurrences came from the coal supply issue as documented in correspondence dated 1/19/05.  3 other incidents were caused with problems with the stokers. The west stoker locked up and the center stoker broke a chain.

Soot blowing  
(14%) 22 Occurrences

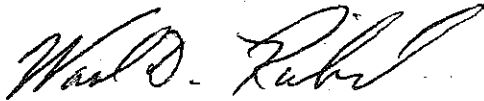
There were 22 soot-blowing exceedences during the quarter. The coal quality greatly effected this raising the baseline opacity levels.

Startup/shutdown  
(5%) 7 Occurrences

We had sever exceedences when the intake well froze on January 18, 2005. We lost cooling water to the plant, which shut the plant air compressor system down. Many of the controls on the #5 boiler are pneumatically controlled. The air failure caused the controllers to fail and three exceedences resulted. The remaining four resulted switching from gas to coal on start-up. During our planned plant outage in April we installed a city water back-up supply to eliminate this from reoccurring.

If you have any questions please call me at 810-326-2841.

Sincerely,



Wade D. Richards  
Powerhouse Superintendent

cc: Don Chutas  
EHS File

Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler  
Table 1 – Opacity Excursions  
Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity Reporting period: First quarter, 2005

Company: Cargill Salt Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1) Total Source Operation Time 129315 min

Monitor Manufacturer, Model No., & Serial No.: Durag DR 90, #403074

**Emission Data Summary**

1	Duration of Excess Emissions (EE) in reporting period due to:	
a.	Startup/Shutdown	<u>42</u>
b.	Soot Blowing	<u>132</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>768</u>
e.	Other Known Causes	<u>0</u>
f.	Unknown Causes	<u>0</u>
2	Total Durations of EE's	<u>942</u>
3	Total Duration of EE's/Total Source Operation Time X 100	<u>0.73 %</u>

**CEM System Summary**

1	CEM system downtime in reporting period due to:	
a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>36</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>
2	Total CEM System Downtime	<u>36</u>
3	Total CEM System Downtime/Total Source Operation Time X 100	<u>0.03 %</u>

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: Wael R. R. R.

Date: 4/28/05

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	1/2/05	5:17 PM	40	Process problems	West stoker locked up
2	1/8/05	5:59 PM	21	Soot blowing	Soot blowing
3	1/10/05	10:41 AM	22	Process problems	2 X 0 coal
4	1/10/05	12:35 PM	21	Process problems	2 X 0 coal
5	1/10/05	12:47 PM	21	Process problems	2 X 0 coal
6	1/10/05	12:53 PM	21	Process problems	2 X 0 coal
7	1/10/05	12:59 PM	22	Process problems	2 X 0 coal
8	1/10/05	1:11 PM	27	Process problems	2 X 0 coal
9	1/10/05	1:17 PM	25	Process problems	2 X 0 coal
10	1/10/05	1:23 PM	23	Process problems	2 X 0 coal
11	1/10/05	1:29 PM	23	Process problems	2 X 0 coal
12	1/10/05	1:35 PM	24	Process problems	2 X 0 coal
13	1/10/05	1:41 PM	23	Process problems	2 X 0 coal
14	1/10/05	1:47 PM	25	Process problems	2 X 0 coal
15	1/10/05	1:53 PM	30	Process problems	2 X 0 coal
16	1/10/05	1:59 PM	30	Process problems	2 X 0 coal
17	1/10/05	2:11 PM	25	Process problems	2 X 0 coal
18	1/10/05	2:17 PM	25	Process problems	2 X 0 coal
19	1/10/05	2:23 PM	24	Process problems	2 X 0 coal
20	1/10/05	2:29 PM	23	Process problems	2 X 0 coal
21	1/10/05	2:35 PM	26	Process problems	2 X 0 coal
22	1/10/05	2:41 PM	23	Process problems	2 X 0 coal
23	1/10/05	2:47 PM	25	Process problems	2 X 0 coal
24	1/10/05	2:53 PM	24	Process problems	2 X 0 coal
25	1/10/05	2:59 PM	22	Process problems	2 X 0 coal
26	1/10/05	3:11 PM	21	Process problems	2 X 0 coal
27	1/10/05	3:17 PM	22	Process problems	2 X 0 coal
28	1/10/05	3:23 PM	21	Process problems	2 X 0 coal
29	1/10/05	3:41 PM	28	Process problems	2 X 0 coal
30	1/10/05	3:47 PM	24	Process problems	2 X 0 coal
31	1/10/05	4:23 PM	28	Process problems	2 X 0 coal
32	1/10/05	6:23 PM	26	Process problems	2 X 0 coal
33	1/10/05	6:47 PM	27	Process problems	2 X 0 coal
34	1/10/05	6:53 PM	32	Process problems	2 X 0 coal
35	1/10/05	6:59 PM	25	Process problems	2 X 0 coal
36	1/10/05	7:11 PM	24	Process problems	2 X 0 coal
37	1/10/05	7:17 PM	26	Process problems	2 X 0 coal
38	1/10/05	7:23 PM	29	Process problems	2 X 0 coal
39	1/10/05	7:29 PM	21	Process problems	2 X 0 coal
40	1/10/05	7:41 PM	23	Process problems	2 X 0 coal
41	1/10/05	7:47 PM	32	Process problems	2 X 0 coal
42	1/10/05	8:23 PM	26	Process problems	2 X 0 coal
43	1/10/05	8:29 PM	21	Process problems	2 X 0 coal
44	1/10/05	8:35 PM	22	Process problems	2 X 0 coal
45	1/10/05	8:59 PM	34	Process problems	2 X 0 coal
46	1/10/05	9:35 PM	23	Process problems	2 X 0 coal
47	1/10/05	10:53 PM	22	Process problems	2 X 0 coal
48	1/10/05	10:59 PM	26	Process problems	2 X 0 coal

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
49	1/17/05	7:47 PM	21	Soot blowing	Soot blowing
50	1/18/05	12:47 AM	63	Startup/shutdown	Lost control air system, due to frozen water intake
51	1/18/05	12:53 AM	35	Startup/shutdown	Lost control air system, due to frozen water intake
52	1/18/05	12:59 AM	40	Startup/shutdown	Lost control air system, due to frozen water intake
53	1/18/05	5:29 AM	32	Startup/shutdown	Switch from gas to coal
54	1/18/05	5:35 AM	37	Startup/shutdown	Switch from gas to coal
55	1/18/05	5:41 AM	41	Startup/shutdown	Switch from gas to coal
56	1/18/05	5:47 AM	50	Startup/shutdown	Switch from gas to coal
57	1/18/05	6:29 PM	22	Process problems	2X0
58	1/18/05	6:35 PM	21	Process problems	2X0
59	1/18/05	6:53 PM	26	Soot blowing	Soot blowing
60	1/19/05	8:41 AM	28	Soot blowing	Soot blowing
61	1/20/05	4:29 PM	22	Soot blowing	Soot blowing
62	1/21/05	6:35 AM	26	Process problems	2X0
63	1/21/05	6:41 AM	25	Process problems	2X0
64	1/21/05	6:47 AM	26	Process problems	2X0
65	1/21/05	6:53 AM	24	Process problems	2X0
66	1/21/05	6:59 AM	24	Process problems	2X0
67	1/21/05	7:11 AM	21	Process problems	2X0
68	1/21/05	7:17 AM	21	Process problems	2X0
69	1/21/05	7:41 AM	22	Process problems	2X0
70	1/21/05	7:47 AM	22	Process problems	2X0
71	1/22/05	4:29 AM	22	Process problems	2X0
72	1/22/05	4:35 AM	22	Process problems	2X0
73	1/22/05	4:41 AM	22	Process problems	2X0
74	1/22/05	4:47 AM	22	Process problems	2X0
75	1/22/05	4:53 AM	21	Process problems	2X0
76	1/25/05	8:47 AM	25	Soot blowing	Soot blowing
77	1/27/05	6:59 AM	29	Process problems	2X0
78	1/27/05	7:11 AM	26	Process problems	2X0
79	1/27/05	7:17 AM	30	Process problems	2X0
80	1/27/05	3:47 PM	30	Soot blowing	Soot blowing
81	1/28/05	6:17 PM	23	Process problems	2X0
82	1/28/05	6:23 PM	21	Process problems	2X0
83	1/29/05	9:35 AM	24	Process problems	2X0
84	1/31/05	11:35 AM	22	Process problems	Center stoker chain broke
85	1/31/05	11:41 AM	22	Process problems	Center stoker chain broke
86	1/31/05	4:29 PM	23	Process problems	2X0
87	1/31/05	4:35 PM	23	Process problems	2X0
88	1/31/05	9:47 PM	21	Process problems	2X0
89	2/4/05	12:29 PM	21	Process problems	2X0
90	2/4/05	2:23 PM	22	Process problems	2X0
91	2/5/05	2:29 AM	23	Process problems	2X0
92	2/11/05	5:47 AM	30	Soot blowing	Soot blowing
93	2/12/05	5:53 AM	28	Soot blowing	Soot blowing
94	2/13/05	6:47 AM	29	Soot blowing	Soot blowing
95	2/14/05	1:29 PM	21	Process problems	2X0
96	2/15/05	5:47 AM	29	Soot blowing	Soot blowing

2  
3

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
97	2/20/05	7:23 AM	22	Process problems	2X0
98	2/20/05	7:47 AM	22	Process problems	2X0
99	2/20/05	7:53 AM	22	Process problems	2X0
100	2/20/05	8:17 AM	28	Process problems	2X0
101	2/26/05	9:53 PM	21	Soot blowing	Soot blowing
102	2/28/05	11:53 AM	21	Process problems	2X0
103	2/28/05	12:29 PM	24	Process problems	2X0
104	2/28/05	12:35 PM	22	Process problems	2X0
105	2/28/05	12:41 PM	22	Process problems	2X0
106	2/28/05	12:47 PM	22	Process problems	2X0
107	2/28/05	12:53 PM	21	Process problems	2X0
108	2/28/05	12:59 PM	21	Process problems	2X0
109	2/28/05	1:11 PM	21	Process problems	2X0
110	2/28/05	1:17 PM	21	Process problems	2X0
111	2/28/05	8:53 PM	23	Process problems	2X0
112	3/1/05	9:53 AM	21	Process problems	2X0
113	3/1/05	10:17 AM	21	Process problems	2X0
114	3/1/05	10:47 PM	21	Soot blowing	Soot blowing
115	3/7/05	6:29 PM	21	Soot blowing	Soot blowing
116	3/9/05	10:29 AM	23	Process problems	2X0
117	3/11/05	12:29 AM	21	Process problems	2X0
118	3/11/05	12:35 AM	21	Process problems	2X0
119	3/11/05	6:59 PM	25	Soot blowing	Soot blowing
120	3/11/05	7:29 PM	21	Process problems	2X0
121	3/11/05	8:17 PM	21	Process problems	2X0
122	3/11/05	8:23 PM	21	Process problems	2X0
123	3/11/05	8:29 PM	21	Process problems	2X0
124	3/12/05	6:53 AM	21	Process problems	2X0
125	3/14/05	6:53 AM	21	Soot blowing	Soot blowing
126	3/14/05	10:53 AM	21	Process problems	2X0
127	3/14/05	10:59 AM	21	Process problems	2X0
128	3/14/05	11:17 AM	21	Process problems	2X0
129	3/14/05	11:23 AM	21	Process problems	2X0
130	3/14/05	11:29 AM	22	Process problems	2X0
131	3/14/05	11:35 AM	23	Process problems	2X0
132	3/14/05	11:41 AM	23	Process problems	2X0
133	3/14/05	11:47 AM	22	Process problems	2X0
134	3/14/05	11:53 AM	21	Process problems	2X0
135	3/14/05	12:41 PM	28	Process problems	2X0
136	3/14/05	1:47 PM	23	Process problems	2X0
137	3/14/05	1:53 PM	22	Process problems	2X0
138	3/14/05	3:17 PM	21	Process problems	2X0
139	3/14/05	3:23 PM	23	Process problems	2X0
140	3/14/05	4:53 PM	21	Process problems	2X0
141	3/14/05	4:59 PM	21	Process problems	2X0
142	3/14/05	9:17 PM	29	Process problems	2X0
143	3/14/05	9:23 PM	21	Process problems	2X0
144	3/16/05	3:17 PM	21	Process problems	2X0

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
145	3/23/05	2:53 PM	21	Process problems	2X0
146	3/23/05	9:11 PM	23	Process problems	2X0
147	3/24/05	5:53 AM	32	Soot blowing	Soot blowing
148	3/24/05	6:47 AM	21	Process problems	2X0
149	3/24/05	7:11 AM	21	Process problems	2X0
150	3/24/05	7:17 AM	21	Process problems	2X0
151	3/24/05	8:53 PM	36	Soot blowing	Soot blowing
152	3/25/05	5:53 AM	29	Soot blowing	Soot blowing
153	3/25/05	9:23 PM	21	Soot blowing	Soot blowing
154	3/30/05	6:47 AM	30	Soot blowing	Soot blowing
155	3/30/05	3:11 PM	22	Process problems	2X0
156	3/30/05	3:17 PM	21	Process problems	2X0
157	3/31/05	7:47 AM	29	Soot blowing	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
1/2/05	5:11 PM	24	No	Within emission limits	West stoker froze up
1/4/05	5:53 AM	22	No	Within emission limits	Soot blowing
1/4/05	6:47 AM	22	No	Within emission limits	Soot blowing
1/4/05	7:41 AM	21	No	Within emission limits	Soot blowing
1/5/05	5:53 AM	22	No	Within emission limits	Soot blowing
1/6/05	5:47 AM	21	No	Within emission limits	Soot blowing
1/6/05	6:41 AM	22	No	Within emission limits	Soot blowing
1/7/05	6:47 AM	22	No	Within emission limits	Soot blowing
1/7/05	6:47 PM	22	No	Within emission limits	Soot blowing
1/7/05	7:47 PM	21	No	Within emission limits	Soot blowing
1/8/05	5:47 AM	21	No	Within emission limits	Soot blowing
1/8/05	8:41 AM	21	No	Within emission limits	Soot blowing
1/8/05	9:47 AM	23	No	Within emission limits	Soot blowing
1/8/05	10:41 AM	21	No	Within emission limits	Soot blowing
1/8/05	12:47 PM	21	No	Within emission limits	Soot blowing
1/8/05	1:47 PM	21	No	Within emission limits	Soot blowing
1/8/05	2:23 PM	21	No	Within emission limits	Soot blowing
1/8/05	5:53 PM	21	No	Within emission limits	Soot blowing
1/8/05	6:05 PM	21	No	Within emission limits	Soot blowing
1/9/05	12:47 AM	22	No	Within emission limits	Soot blowing
1/9/05	1:48 AM	22	No	Within emission limits	Soot blowing
1/9/05	2:47 AM	21	No	Within emission limits	Soot blowing
1/9/05	7:47 AM	23	No	Within emission limits	Soot blowing
1/9/05	8:47 AM	25	No	Within emission limits	Soot blowing
1/9/05	9:47 AM	24	No	Within emission limits	Soot blowing
1/9/05	5:59 PM	21	No	Within emission limits	Soot blowing
1/10/05	5:47 AM	24	No	Within emission limits	Soot blowing
1/10/05	6:47 AM	24	No	Within emission limits	Soot blowing
1/10/05	9:47 AM	23	No	Within emission limits	Soot blowing
1/10/05	10:29 AM	22	No	Within emission limits	2 X 0 coal
1/10/05	12:05 PM	21	No	Within emission limits	2 X 0 coal
1/10/05	1:05 PM	23	No	Within emission limits	2 X 0 coal
1/10/05	2:05 PM	26	No	Within emission limits	2 X 0 coal
1/10/05	3:05 PM	22	No	Within emission limits	2 X 0 coal
1/10/05	4:17 PM	21	No	Within emission limits	2 X 0 coal
1/10/05	5:47 PM	25	No	Within emission limits	Soot blowing
1/10/05	6:17 PM	22	No	Within emission limits	2 x 0 coal
1/10/05	7:05 PM	26	No	Within emission limits	2 X 0 coal
1/10/05	8:17 PM	24	No	Within emission limits	2 X 0 coal
1/10/05	9:05 PM	24	No	Within emission limits	2 X 0 coal
1/10/05	10:17 PM	25	No	Within emission limits	2 X 0 coal
1/10/05	11:29 PM	25	No	Within emission limits	2 X 0 coal
1/11/05	3:05 AM	21	No	Within emission limits	2 X 0 coal
1/11/05	9:17 AM	21	No	Within emission limits	Soot blowing
1/11/05	5:23 PM	22	No	Within emission limits	Soot blowing
1/11/05	6:53 PM	22	No	Within emission limits	Soot blowing
1/11/05	7:47 PM	22	No	Within emission limits	Soot blowing
1/11/05	8:47 PM	23	No	Within emission limits	Soot blowing



**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
1/12/05	6:47 AM	26	No	Within emission limits	Soot blowing
1/12/05	7:41 AM	26	No	Within emission limits	Soot blowing
1/12/05	9:41 AM	26	No	Within emission limits	Soot blowing
1/12/05	5:41 PM	24	No	Within emission limits	Soot blowing
1/13/05	7:41 AM	21	No	Within emission limits	Soot blowing
1/13/05	8:41 PM	23	No	Within emission limits	Soot blowing
1/13/05	9:47 PM	22	No	Within emission limits	Soot blowing
1/13/05	11:47 PM	22	No	Within emission limits	Soot blowing
1/14/05	7:47 PM	22	No	Within emission limits	Soot blowing
1/14/05	8:47 PM	21	No	Within emission limits	Soot blowing
1/15/05	5:47 AM	21	No	Within emission limits	Soot blowing
1/15/05	7:47 PM	23	No	Within emission limits	Soot blowing
1/17/05	7:41 PM	21	No	Within emission limits	Soot blowing
1/17/05	10:59 PM	25	No	Within emission limits	Soot blowing
1/18/05	1:05 AM	24	No	Within emission limits	Lost control air system, frozen water intake
1/18/05	5:05 AM	21	No	Within emission limits	Startup on nat gas, start overfire air fan
1/18/05	9:35 AM	22	No	Within emission limits	Soot blowing
1/18/05	11:29 AM	22	No	Within emission limits	Soot blowing
1/18/05	2:23 PM	22	No	Within emission limits	Soot blowing
1/18/05	5:05 PM	27	No	Within emission limits	2X0
1/18/05	6:23 PM	22	No	Within emission limits	2X0
1/19/05	12:59 AM	21	No	Within emission limits	Soot blowing
1/19/05	1:53 AM	23	No	Within emission limits	Soot blowing
1/19/05	7:53 PM	23	No	Within emission limits	Soot blowing
1/19/05	9:53 PM	21	No	Within emission limits	Soot blowing
1/20/05	1:41 AM	21	No	Within emission limits	Soot blowing
1/20/05	6:47 AM	25	No	Within emission limits	Soot blowing
1/20/05	7:47 AM	25	No	Within emission limits	Soot blowing
1/20/05	10:59 AM	21	No	Within emission limits	Soot blower
1/20/05	4:17 PM	22	No	Within emission limits	2X0
1/21/05	3:53 AM	23	No	Within emission limits	2X0
1/21/05	4:53 AM	24	No	Within emission limits	2X0
1/21/05	6:23 AM	22	No	Within emission limits	2X0
1/21/05	7:05 AM	24	No	Within emission limits	2X0
1/21/05	9:53 AM	21	No	Within emission limits	Soot blowing
1/21/05	11:47 PM	23	No	Within emission limits	Soot blowing
1/22/05	1:35 AM	21	No	Within emission limits	Soot blowing
1/22/05	4:23 AM	21	No	Within emission limits	2X0
1/22/05	6:53 AM	23	No	Within emission limits	Soot blowing
1/22/05	7:47 AM	23	No	Within emission limits	Soot blowing
1/22/05	8:47 AM	22	No	Within emission limits	Soot blowing
1/22/05	5:47 PM	21	No	Within emission limits	Soot blowing
1/22/05	7:53 PM	25	No	Within emission limits	Soot blowing
1/22/05	9:47 PM	21	No	Within emission limits	Soot blowing
1/23/05	8:47 PM	22	No	Within emission limits	Soot blowing
1/24/05	8:47 PM	22	No	Within emission limits	Soot blowing
1/24/05	11:47 PM	21	No	Within emission limits	Soot blowing
1/25/05	5:53 AM	22	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
1/25/05	6:47 AM	26	No	Within emission limits	Soot blowing
1/25/05	8:11 AM	25	No	Within emission limits	Mechanical collector pulling ash
1/27/05	6:53 AM	27	No	Within emission limits	2X0
1/27/05	7:05 AM	24	No	Within emission limits	2X0
1/27/05	5:53 PM	21	No	Within emission limits	Soot blowing
1/28/05	9:47 AM	22	No	Within emission limits	Soot blowing
1/28/05	6:11 PM	21	No	Within emission limits	2X0
1/28/05	7:59 PM	22	No	Within emission limits	Soot blowing
1/28/05	8:05 PM	23	No	Within emission limits	Soot blowing
1/29/05	4:53 AM	21	No	Within emission limits	Soot blowing
1/29/05	6:47 AM	24	No	Within emission limits	Soot blowing
1/29/05	7:47 AM	22	No	Within emission limits	Soot blowing
1/29/05	8:29 AM	23	No	Within emission limits	Soot blowing
1/29/05	9:29 AM	21	No	Within emission limits	2X0
1/29/05	7:47 PM	22	No	Within emission limits	Soot blowing
1/29/05	8:47 PM	23	No	Within emission limits	Soot blowing
1/30/05	5:47 AM	24	No	Within emission limits	Soot blowing
1/31/05	6:41 AM	21	No	Within emission limits	Soot blowing
1/31/05	11:29 AM	21	No	Within emission limits	Center stoker chain broke
1/31/05	12:29 PM	21	No	Within emission limits	Soot blowing
1/31/05	4:23 PM	21	No	Within emission limits	2X0
1/31/05	8:23 PM	21	No	Within emission limits	2X0
1/31/05	9:41 PM	21	No	Within emission limits	2X0
2/1/05	5:47 AM	22	No	Within emission limits	Soot blowing
2/1/05	6:53 AM	22	No	Within emission limits	Soot blowing
2/1/05	8:47 AM	21	No	Within emission limits	Soot blowing
2/1/05	8:47 PM	21	No	Within emission limits	Soot blowing
2/2/05	5:53 AM	22	No	Within emission limits	Soot blowing
2/2/05	8:47 AM	26	No	Within emission limits	Soot blowing
2/2/05	9:41 AM	23	No	Within emission limits	Soot blowing
2/2/05	5:53 PM	22	No	Within emission limits	Soot blowing
2/3/05	5:47 AM	22	No	Within emission limits	Soot blowing
2/3/05	6:47 AM	23	No	Within emission limits	Soot blowing
2/4/05	6:47 AM	23	No	Within emission limits	2X0
2/4/05	11:59 AM	21	No	Within emission limits	2X0
2/4/05	12:23 PM	21	No	Within emission limits	2X0
2/4/05	2:17 PM	22	No	Within emission limits	2X0
2/5/05	2:23 AM	21	No	Within emission limits	2X0
2/5/05	3:53 AM	21	No	Within emission limits	Soot blowing
2/5/05	4:53 AM	22	No	Within emission limits	Soot blowing
2/5/05	5:53 AM	26	No	Within emission limits	Soot blowing
2/5/05	6:47 AM	22	No	Within emission limits	Soot blowing
2/5/05	8:47 AM	22	No	Within emission limits	Soot blowing
2/6/05	3:53 AM	22	No	Within emission limits	Soot blowing
2/6/05	4:53 AM	21	No	Within emission limits	Soot blowing
2/6/05	5:47 AM	22	No	Within emission limits	Soot blowing
2/6/05	6:47 PM	22	No	Within emission limits	Soot blowing
2/6/05	8:47 PM	21	No	Within emission limits	Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
2/6/05	9:47 PM	22	No	Within emission limits	Soot blowing
2/7/05	6:41 AM	23	No	Within emission limits	Soot blowing
2/7/05	7:47 AM	23	No	Within emission limits	Soot blowing
2/7/05	11:30 AM	21	No	Within emission limits	Soot blowing
2/8/05	6:47 AM	23	No	Within emission limits	Soot blowing
2/8/05	7:47 AM	23	No	Within emission limits	Soot blowing
2/8/05	9:47 AM	23	No	Within emission limits	Soot blowing
2/8/05	5:47 PM	22	No	Within emission limits	Soot blowing
2/8/05	7:47 PM	22	No	Within emission limits	Soot blowing
2/8/05	8:47 PM	21	No	Within emission limits	Soot blowing
2/9/05	6:35 AM	21	No	Within emission limits	Soot blowing
2/9/05	5:47 PM	22	No	Within emission limits	Soot blowing
2/10/05	8:41 AM	22	No	Within emission limits	Soot blowing
2/10/05	9:47 AM	24	No	Within emission limits	Soot blowing
2/10/05	8:53 PM	25	No	Within emission limits	Soot blowing
2/10/05	10:53 PM	23	No	Within emission limits	Soot blowing
2/11/05	6:41 AM	21	No	Within emission limits	Soot blowing
2/11/05	7:41 AM	21	No	Within emission limits	Soot blowing
2/11/05	9:41 AM	21	No	Within emission limits	Soot blowing
2/11/05	5:53 PM	21	No	Within emission limits	Soot blowing
2/11/05	6:53 PM	21	No	Within emission limits	Soot blowing
2/12/05	6:47 AM	24	No	Within emission limits	Soot blowing
2/12/05	7:47 AM	25	No	Within emission limits	Soot blowing
2/12/05	9:23 PM	23	No	Within emission limits	Soot blowing
2/13/05	2:47 AM	23	No	Within emission limits	Soot blowing
2/13/05	3:53 AM	23	No	Within emission limits	Soot blowing
2/13/05	4:53 AM	21	No	Within emission limits	Soot blowing
2/13/05	6:53 PM	22	No	Within emission limits	Soot blowing
2/13/05	7:53 PM	21	No	Within emission limits	Soot blowing
2/14/05	5:47 AM	23	No	Within emission limits	Soot blowing
2/14/05	6:47 AM	22	No	Within emission limits	Soot blowing
2/14/05	7:47 AM	23	No	Within emission limits	Soot blowing
2/14/05	1:23 PM	21	No	Within emission limits	2X0
2/14/05	1:41 PM	21	No	Within emission limits	2X0
2/14/05	6:47 PM	22	No	Within emission limits	Soot blowing
2/14/05	7:47 PM	23	No	Within emission limits	Soot blowing
2/14/05	8:47 PM	21	No	Within emission limits	Soot blowing
2/15/05	6:47 AM	25	No	Within emission limits	Soot blowing
2/15/05	8:47 AM	25	No	Within emission limits	Soot blowing
2/15/05	5:47 PM	22	No	Within emission limits	Soot blowing
2/15/05	6:47 PM	22	No	Within emission limits	Soot blowing
2/16/05	5:47 AM	26	No	Within emission limits	Soot blowing
2/16/05	6:53 AM	24	No	Within emission limits	Soot blowing
2/16/05	7:47 AM	23	No	Within emission limits	Soot blowing
2/16/05	6:47 PM	21	No	Within emission limits	Soot blowing
2/16/05	7:47 PM	21	No	Within emission limits	Soot blowing
2/17/05	7:47 AM	22	No	Within emission limits	Soot blowing
2/17/05	9:41 AM	23	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
2/17/05	10:47 AM	22	No	Within emission limits	Soot blowing
2/17/05	6:47 PM	22	No	Within emission limits	Soot blowing
2/17/05	8:47 PM	21	No	Within emission limits	Soot blowing
2/18/05	5:47 AM	23	No	Within emission limits	Soot blowing
2/18/05	6:47 AM	23	No	Within emission limits	Soot blowing
2/18/05	12:29 PM	24	No	Within emission limits	Soot blowing
2/18/05	1:35 PM	21	No	Within emission limits	Soot blowing
2/19/05	5:47 AM	24	No	Within emission limits	Soot blowing
2/19/05	6:47 AM	24	No	Within emission limits	Soot blowing
2/19/05	7:47 AM	21	No	Within emission limits	Soot blowing
2/19/05	9:53 PM	21	No	Within emission limits	Soot blowing
2/19/05	10:53 PM	23	No	Within emission limits	Soot blowing
2/20/05	5:47 AM	22	No	Within emission limits	Soot blowing
2/20/05	7:17 AM	21	No	Within emission limits	2X0
2/20/05	8:23 AM	21	No	Within emission limits	2X0
2/20/05	9:47 AM	25	No	Within emission limits	Soot blowing
2/20/05	1:41 PM	21	No	Within emission limits	2X0
2/20/05	5:53 PM	21	No	Within emission limits	Soot blowing
2/21/05	5:47 AM	22	No	Within emission limits	Soot blowing
2/21/05	6:47 AM	24	No	Within emission limits	Soot blowing
2/21/05	7:47 AM	24	No	Within emission limits	Soot blowing
2/22/05	7:11 AM	22	No	Within emission limits	Soot blowing
2/22/05	9:41 AM	22	No	Within emission limits	Soot blowing
2/22/05	10:47 AM	27	No	Within emission limits	Soot blowing
2/22/05	11:47 AM	23	No	Within emission limits	Soot blowing
2/22/05	5:47 PM	22	No	Within emission limits	Soot blowing
2/22/05	6:47 PM	22	No	Within emission limits	Soot blowing
2/22/05	7:47 PM	23	No	Within emission limits	Soot blowing
2/23/05	6:47 AM	24	No	Within emission limits	Soot blowing
2/23/05	7:41 AM	22	No	Within emission limits	Soot blowing
2/23/05	5:47 PM	21	No	Within emission limits	Soot blowing
2/23/05	7:47 PM	22	No	Within emission limits	Soot blowing
2/24/05	6:41 AM	23	No	Within emission limits	Soot blowing
2/24/05	7:47 AM	22	No	Within emission limits	Soot blowing
2/24/05	6:47 PM	23	No	Within emission limits	Soot blowing
2/24/05	8:47 PM	22	No	Within emission limits	Soot blowing
2/24/05	9:47 PM	21	No	Within emission limits	Soot blowing
2/25/05	5:47 AM	24	No	Within emission limits	Soot blowing
2/25/05	6:41 AM	22	No	Within emission limits	Soot blowing
2/25/05	7:47 AM	22	No	Within emission limits	Soot blowing
2/25/05	6:47 PM	22	No	Within emission limits	Soot blowing
2/25/05	7:47 PM	23	No	Within emission limits	Soot blowing
2/25/05	8:47 PM	22	No	Within emission limits	Soot blowing
2/26/05	5:47 AM	21	No	Within emission limits	Soot blowing
2/26/05	6:47 AM	25	No	Within emission limits	Soot blowing
2/26/05	7:47 AM	25	No	Within emission limits	Soot blowing
2/26/05	9:05 PM	22	No	Within emission limits	Soot blowing
2/26/05	10:53 PM	22	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
2/27/05	5:47 AM	24	No	Within emission limits	Soot blowing
2/27/05	6:47 AM	25	No	Within emission limits	Soot blowing
2/27/05	7:47 AM	24	No	Within emission limits	Soot blowing
2/28/05	5:41 AM	21	No	Within emission limits	Soot blowing
2/28/05	7:47 AM	26	No	Within emission limits	Soot blowing
2/28/05	8:41 AM	23	No	Within emission limits	Soot blowing
2/28/05	11:47 AM	21	No	Within emission limits	2X0
2/28/05	12:23 PM	22	No	Within emission limits	2X0
2/28/05	1:05 PM	21	No	Within emission limits	2X0
2/28/05	3:47 PM	21	No	Within emission limits	2X0
2/28/05	8:11 PM	21	No	Within emission limits	2X0
3/1/05	3:53 AM	22	No	Within emission limits	Soot blowing
3/1/05	4:47 AM	22	No	Within emission limits	Soot blowing
3/1/05	5:47 AM	26	No	Within emission limits	Soot blowing
3/1/05	9:47 AM	22	No	Within emission limits	2X0
3/1/05	10:11 AM	21	No	Within emission limits	2X0
3/2/05	5:47 AM	22	No	Within emission limits	Soot blowing
3/2/05	6:41 AM	23	No	Within emission limits	Soot blowing
3/2/05	7:47 AM	22	No	Within emission limits	Soot blowing
3/2/05	6:47 PM	21	No	Within emission limits	Soot blowing
3/3/05	5:47 AM	24	No	Within emission limits	Soot blowing
3/3/05	6:41 AM	23	No	Within emission limits	Soot blowing
3/3/05	5:53 PM	21	No	Within emission limits	Soot blowing
3/3/05	6:53 PM	22	No	Within emission limits	Soot blowing
3/3/05	7:53 PM	21	No	Within emission limits	Soot blowing
3/4/05	5:53 AM	22	No	Within emission limits	Soot blowing
3/4/05	6:41 AM	22	No	Within emission limits	Soot blowing
3/4/05	7:41 AM	21	No	Within emission limits	Soot blowing
3/4/05	5:47 PM	22	No	Within emission limits	Soot blowing
3/5/05	6:41 AM	24	No	Within emission limits	Soot blowing
3/5/05	7:47 AM	24	No	Within emission limits	Soot blowing
3/5/05	7:47 PM	22	No	Within emission limits	Soot blowing
3/6/05	5:47 AM	23	No	Within emission limits	Soot blowing
3/6/05	6:47 AM	21	No	Within emission limits	Soot blowing
3/6/05	7:53 AM	23	No	Within emission limits	Soot blowing
3/6/05	7:53 PM	22	No	Within emission limits	Soot blowing
3/7/05	5:53 AM	25	No	Within emission limits	Soot blowing
3/7/05	6:47 AM	24	No	Within emission limits	Soot blowing
3/7/05	7:47 AM	22	No	Within emission limits	Soot blowing
3/7/05	5:17 PM	22	No	Within emission limits	Soot blowing
3/7/05	6:23 PM	21	No	Within emission limits	Soot blowing
3/7/05	9:29 PM	21	No	Within emission limits	Soot blowing
3/8/05	3:59 AM	22	No	Within emission limits	Soot blowing
3/8/05	4:05 AM	22	No	Within emission limits	Soot blowing
3/8/05	7:47 AM	21	No	Within emission limits	2X0
3/8/05	9:53 PM	21	No	Within emission limits	Soot blowing
3/8/05	10:53 PM	21	No	Within emission limits	Soot blowing
3/9/05	6:41 AM	24	No	Within emission limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
3/9/05	7:47 AM	24	No	Within emission limits	Soot blowing
3/9/05	10:23 AM	22	No	Within emission limits	2X0
3/9/05	5:53 PM	23	No	Within emission limits	Soot blowing
3/9/05	6:53 PM	24	No	Within emission limits	Soot blowing
3/9/05	7:47 PM	24	No	Within emission limits	Soot blowing
3/10/05	6:41 AM	21	No	Within emission limits	Soot blowing
3/10/05	7:41 AM	23	No	Within emission limits	Soot blowing
3/10/05	6:47 PM	22	No	Within emission limits	Soot blowing
3/10/05	7:47 PM	23	No	Within emission limits	Soot blowing
3/10/05	8:47 PM	22	No	Within emission limits	Soot blowing
3/11/05	12:23 AM	21	No	Within emission limits	2X0
3/11/05	5:53 AM	22	No	Within emission limits	Soot blowing
3/11/05	6:41 AM	22	No	Within emission limits	Soot blowing
3/11/05	7:41 AM	21	No	Within emission limits	Soot blowing
3/11/05	6:17 PM	21	No	Within emission limits	2X0
3/11/05	7:23 PM	21	No	Within emission limits	2X0
3/11/05	8:11 PM	21	No	Within emission limits	2X0
3/11/05	10:47 PM	22	No	Within emission limits	Soot blowing
3/12/05	6:41 AM	23	No	Within emission limits	2X0
3/12/05	6:47 PM	22	No	Within emission limits	Soot blowing
3/12/05	7:47 PM	22	No	Within emission limits	Soot blowing
3/12/05	8:47 PM	21	No	Within emission limits	Soot blowing
3/13/05	6:47 PM	22	No	Within emission limits	Soot blowing
3/13/05	7:47 PM	21	No	Within emission limits	Soot blowing
3/14/05	6:47 AM	26	No	Within emission limits	Soot blowing
3/14/05	7:47 AM	24	No	Within emission limits	Soot blowing
3/14/05	8:47 AM	21	No	Within emission limits	Soot blowing
3/14/05	10:41 AM	21	No	Within emission limits	2X0
3/14/05	11:11 AM	21	No	Within emission limits	2X0
3/14/05	12:53 PM	21	No	Within emission limits	2X0
3/14/05	1:05 PM	21	No	Within emission limits	2X0
3/14/05	2:35 PM	21	No	Within emission limits	2X0
3/14/05	3:05 PM	21	No	Within emission limits	2X0
3/14/05	4:47 PM	21	No	Within emission limits	2X0
3/14/05	9:11 PM	25	No	Within emission limits	2X0
3/15/05	1:41 AM	21	No	Within emission limits	Soot blowing
3/15/05	5:53 AM	24	No	Within emission limits	Soot blowing
3/15/05	7:47 AM	25	No	Within emission limits	Soot blowing
3/15/05	5:53 PM	22	No	Within emission limits	Soot blowing
3/15/05	6:53 PM	21	No	Within emission limits	Soot blowing
3/15/05	7:53 PM	21	No	Within emission limits	Soot blowing
3/16/05	5:53 AM	25	No	Within emission limits	Soot blowing
3/16/05	6:47 AM	23	No	Within emission limits	Soot blowing
3/16/05	7:41 AM	24	No	Within emission limits	Soot blowing
3/16/05	12:29 PM	21	No	Within emission limits	2X0
3/16/05	3:05 PM	21	No	Within emission limits	2X0
3/16/05	9:53 PM	22	No	Within emission limits	Soot blowing
3/16/05	11:47 PM	22	No	Within emission limits	Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
3/17/05	12:53 AM	21	No	Within emission limits	Soot blowing
3/17/05	7:41 AM	21	No	Within emission limits	Soot blowing
3/17/05	7:53 PM	22	No	Within emission limits	Soot blowing
3/18/05	5:53 AM	22	No	Within emission limits	Soot blowing
3/19/05	6:41 AM	23	No	Within emission limits	Soot blowing
3/19/05	6:47 PM	22	No	Within emission limits	Soot blowing
3/19/05	7:47 PM	24	No	Within emission limits	Soot blowing
3/19/05	8:47 PM	22	No	Within emission limits	Soot blowing
3/20/05	6:41 AM	23	No	Within emission limits	Soot blowing
3/20/05	5:47 PM	21	No	Within emission limits	Soot blowing
3/20/05	6:47 PM	22	No	Within emission limits	Soot blowing
3/20/05	7:47 PM	21	No	Within emission limits	Soot blowing
3/21/05	5:47 AM	23	No	Within emission limits	Soot blowing
3/21/05	6:41 AM	22	No	Within emission limits	Soot blowing
3/21/05	5:47 PM	22	No	Within emission limits	Soot blowing
3/21/05	6:48 PM	23	No	Within emission limits	Soot blowing
3/21/05	7:47 PM	22	No	Within emission limits	Soot blowing
3/22/05	6:53 AM	25	No	Within emission limits	Soot blowing
3/22/05	7:41 AM	25	No	Within emission limits	Soot blowing
3/22/05	8:47 AM	23	No	Within emission limits	Soot blowing
3/22/05	5:41 PM	26	No	Within emission limits	Soot blowing
3/22/05	6:53 PM	22	No	Within emission limits	Soot blowing
3/22/05	7:59 PM	23	No	Within emission limits	Soot blowing
3/23/05	5:47 AM	22	No	Within emission limits	Soot blowing
3/23/05	7:47 AM	25	No	Within emission limits	Soot blowing
3/23/05	2:47 PM	21	No	Within emission limits	2X0
3/23/05	4:59 PM	21	No	Within emission limits	2X0
3/23/05	5:05 PM	23	No	Within emission limits	2X0
3/23/05	6:53 PM	23	No	Within emission limits	Soot blowing
3/23/05	7:53 PM	23	No	Within emission limits	Soot blowing
3/23/05	8:53 PM	24	No	Within emission limits	Soot blowing
3/23/05	9:05 PM	24	No	Within emission limits	2X0
3/24/05	6:41 AM	21	No	Within emission limits	2X0
3/24/05	7:05 AM	21	No	Within emission limits	2X0
3/24/05	8:11 AM	21	No	Within emission limits	Coal
3/24/05	11:47 AM	27	No	Within emission limits	Soot blowing
3/24/05	1:47 PM	26	No	Within emission limits	Soot blowing
3/25/05	6:47 AM	27	No	Within emission limits	Soot blowing
3/25/05	7:47 AM	26	No	Within emission limits	Soot blowing
3/25/05	4:59 PM	23	No	Within emission limits	Soot blowing
3/25/05	9:17 PM	21	No	Within emission limits	Soot blowing
3/25/05	10:53 PM	21	No	Within emission limits	Soot blowing
3/26/05	6:47 PM	21	No	Within emission limits	Soot blowing
3/26/05	7:47 PM	22	No	Within emission limits	Soot blowing
3/27/05	7:41 AM	22	No	Within emission limits	Soot blowing
3/27/05	8:41 AM	21	No	Within emission limits	Soot blowing
3/27/05	5:47 PM	21	No	Within emission limits	Soot blowing
3/27/05	6:47 PM	21	No	Within emission limits	Soot blowing

**Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)**

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
3/28/05	5:53 AM	23	No	Within emission limits	Soot blowing
3/28/05	6:47 AM	21	No	Within emission limits	Soot blowing
3/28/05	6:53 PM	22	No	Within emission limits	Soot blowing
3/28/05	7:47 PM	23	No	Within emission limits	Soot blowing
3/28/05	8:47 PM	21	No	Within emission limits	Soot blowing
3/29/05	12:17 AM	21	No	Within emission limits	2X0
3/29/05	11:59 PM	26	No	Within emission limits	Soot blowing
3/30/05	4:35 AM	21	No	Within emission limits	2X0
3/30/05	5:05 AM	21	No	Within emission limits	2X0
3/30/05	8:47 AM	28	No	Within emission limits	Soot blowing
3/30/05	3:05 PM	22	No	Within emission limits	2X0
3/31/05	3:53 AM	22	No	Within emission limits	Soot blowing
3/31/05	4:53 AM	22	No	Within emission limits	Soot blowing
3/31/05	5:29 AM	22	No	Within emission limits	Soot blowing
3/31/05	6:47 AM	26	No	Within emission limits	Soot blowing
3/31/05	8:47 AM	23	No	Within emission limits	Soot blowing
3/31/05	6:53 PM	21	No	Within emission limits	Soot blowing
3/31/05	8:59 PM	22	No	Within emission limits	Soot blowing





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AIR ENFORCEMENT BRANCH  
U.S. EPA, REGION 5

July 15, 2005

Ms. Teresa Seidel  
Air Quality Division  
Michigan Department of Environmental Quality  
27700 Donald Court  
Warren, MI 48092-2793

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 2<sup>nd</sup> quarter 2005

Dear Ms. Seidel:

This EER is being submitted in accordance with the quarterly reporting requirements of 40 CFR 60.7(c) and (d). Attached is a summary utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 2<sup>nd</sup> quarter, Boiler No. 5 operated within the opacity emission 99.51% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill had two unscheduled shutdowns this quarter both due to tube failures. This process problem resulted in twenty exceedences. Cargill Salt, St. Clair has identified three main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

Cause

Corrective Action Taken or Preventative Measure Adopted

Process problems  
(54%) 50 Occurrences

20 of these occurrences came from blown tubes after chemically cleaning the waterside. These were unique events and occurred after cleaning the tubes for the first time since installation of the boiler.

14 of these occurrences came from the coal supply issue as documented in correspondence dated 1/19/05.

Eight exceedences occurred when the co fire in #5 boiler tripped.

Four occurrences involved the bag house booster fan. Once it was reversed, once it was turned off and twice the damper was closed.

One of the exceedences occurred when the opacity belt slipped on the over fire air fan.

One of the exceedences occurred when the A/C generator tripped because of lateral movement of the coupling through the generator

One occurrence occurred because of the air dryer was off.

One occurrence was due to Detroit Edison doing preventive maintenance on alignment and cleaning.

Soot blowing  
(34%) 32 Occurrences

There were 32 soot-blowing exceedences during the quarter. The coal quality greatly effected this raising the baseline opacity levels.

Startup/shutdown  
(12%) 11 Occurrences

We had nine of the eleven exceedences occur during the planned plant outage.

Two exceedences occurred when switching from gas to coal after a blown tube in the firebox

If you have any questions please call me at 810-326-2841.

Sincerely,



Wade D. Richards  
Powerhouse Superintendent

cc: Don Chutas  
Tony Hodny  
EHS File

Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler

Table 1 – Opacity Excursions

Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	4/1/2005	5:53 AM	29	Soot blowing	Soot blowing
2	4/2/2005	3:59 AM	24	Process problems	2X0
3	4/2/2005	8:47 AM	37	Soot blowing	Soot blowing
4	4/2/2005	8:53 AM	21	Soot blowing	Soot blowing
5	4/8/2005	6:47 AM	29	Soot blowing	Soot blowing
6	4/8/2005	6:59 PM	46	Process problems	Opacity belt slip w/ o.f.a. fan
7	4/11/2005	8:41 AM	58	Startup/Shutdown	planned outage
8	4/17/2005	5:23 PM	21	Process problems	tube failure
9	4/17/2005	5:29 PM	23	Process problems	tube failure
10	4/17/2005	6:29 PM	35	Process problems	tube failure
11	4/17/2005	6:41 PM	37	Process problems	tube failure
12	4/17/2005	6:53 PM	21	Process problems	tube failure
13	4/17/2005	6:59 PM	24	Process problems	tube failure
14	4/17/2005	7:11 PM	29	Process problems	tube failure
15	4/17/2005	7:23 PM	27	Process problems	tube failure
16	4/17/2005	7:35 PM	27	Process problems	tube failure
17	4/17/2005	7:59 PM	27	Process problems	tube failure
18	4/17/2005	8:11 PM	33	Startup/Shutdown	start #5 boiler
19	4/17/2005	8:17 PM	27	Startup/Shutdown	start #5 boiler
20	4/17/2005	8:29 PM	37	Startup/Shutdown	start #5 boiler
21	4/17/2005	8:41 PM	31	Startup/Shutdown	start #5 boiler
22	4/17/2005	8:53 PM	34	Startup/Shutdown	start #5 boiler
23	4/20/2005	10:41 PM	21	Startup/Shutdown	start #5 boiler
24	4/20/2005	11:11 PM	24	Startup/Shutdown	start #5 boiler
25	4/20/2005	11:17 PM	21	Startup/Shutdown	start #5 boiler
26	4/21/2005	12:35 AM	21	Process problems	Tripped A/C gen
27	4/21/2005	7:29 AM	23	Process problems	2X0
28	4/21/2005	7:35 AM	23	Process problems	2X0
29	4/21/2005	7:41 AM	25	Process problems	2X0
30	4/21/2005	8:17 AM	24	Process problems	2X0
31	4/21/2005	8:47 AM	21	Process problems	2X0
32	4/21/2005	8:53 AM	22	Process problems	2X0
33	4/21/2005	8:59 AM	23	Process problems	2X0
34	4/21/2005	5:53 PM	21	Soot blowing	Soot blowing
35	4/23/2005	7:23 AM	84	Process problems	Tube failure
36	4/23/2005	7:29 AM	52	Process problems	Tube failure
37	4/23/2005	7:41 AM	29	Process problems	Tube failure
38	4/23/2005	7:47 AM	63	Process problems	Tube failure
39	4/23/2005	7:53 AM	31	Process problems	Tube failure
40	4/23/2005	8:05 AM	60	Process problems	Tube failure
41	4/24/2005	3:35 PM	36	Startup/Shutdown	Switch from gas to coal
42	4/25/2005	7:47 AM	29	Soot blowing	Soot blowing
43	4/25/2005	8:53 PM	29	Soot blowing	Soot blowing
44	4/25/2005	9:53 PM	28	Soot blowing	Soot blowing
45	4/26/2005	6:47 AM	29	Soot blowing	Soot blowing
46	4/26/2005	8:47 AM	29	Soot blowing	Soot blowing
47	4/28/2005	7:23 AM	23	Process problems	Reversed BH booster fan
48	4/28/2005	8:35 AM	30	Soot blowing	Soot blowing

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
49	4/28/2005	5:35 PM	23	Process problems	Tube blown #5
50	4/28/2005	5:41 PM	26	Process problems	Tube blown #5
51	4/28/2005	5:47 PM	35	Process problems	Tube blown #5
52	4/28/2005	5:53 PM	31	Process problems	Tube blown #5
53	4/29/2005	5:59 AM	30	Startup/Shutdown	#5 boiler down
54	5/2/2005	4:59 PM	23	Process problems	2X0
55	5/2/2005	5:11 PM	21	Process problems	2X0
56	5/2/2005	10:59 PM	28	Process problems	2X0
57	5/3/2005	4:47 PM	31	Process problems	2X0
58	5/3/2005	4:53 PM	23	Process problems	2X0
59	5/4/2005	8:41 AM	30	Soot blowing	Soot blowing
60	5/4/2005	8:47 AM	21	Soot blowing	Soot blowing
61	5/6/2005	6:53 PM	30	Soot blowing	Soot blowing
62	5/7/2005	10:41 AM	21	Process problems	BH fans off
63	5/7/2005	5:59 PM	28	* Soot blowing	Soot blowing
64	5/7/2005	6:29 PM	21	Process problems	2X0
65	5/7/2005	8:53 PM	30	Soot blowing	Soot blowing
66	5/9/2005	5:53 AM	31	Soot blowing	Soot blowing
67	5/9/2005	4:41 PM	29	Process problems	Air dryer off
68	5/9/2005	9:23 PM	31	Process problems	Cofire tripped
69	5/9/2005	9:29 PM	50	Process problems	Cofire tripped
70	5/9/2005	10:05 PM	33	Process problems	Cofire tripped
71	5/9/2005	10:11 PM	40	Process problems	Cofire tripped
72	5/9/2005	10:17 PM	34	Process problems	Cofire tripped
73	5/9/2005	11:17 PM	44	Process problems	Cofire tripped
74	5/9/2005	11:23 PM	41	Process problems	Cofire tripped
75	5/10/2005	4:11 AM	34	Process problems	Cofire tripped
76	5/12/2005	6:47 AM	30	Soot blowing	Soot blowing
77	5/16/2005	6:47 AM	21	Soot blowing	Soot blowing
78	5/17/2005	7:47 AM	29	Soot blowing	Soot blowing
79	5/17/2005	11:35 AM	27	Process problems	Closed BH booster fan
80	5/17/2005	11:41 AM	22	Process problems	Closed BH booster fan
81	5/18/2005	6:47 AM	28	Soot blowing	Soot blowing
82	5/18/2005	7:47 AM	29	Soot blowing	Soot blowing
83	5/19/2005	2:53 AM	23	Soot blowing	Soot blowing
84	5/20/2005	6:47 AM	25	Soot blowing	Soot blowing
85	5/21/2005	7:47 AM	29	Soot blowing	Soot blowing
86	5/22/2005	7:47 AM	22	Soot blowing	Soot blowing
87	5/22/2005	8:47 AM	28	Soot blowing	Soot blowing
88	5/25/2005	7:47 AM	28	Soot blowing	Soot blowing
89	5/26/2005	6:47 AM	29	Soot blowing	Soot blowing
90	5/27/2005	6:47 AM	28	Soot blowing	Soot blowing
91	6/2/2005	6:47 AM	28	Soot blowing	Soot blowing
92	6/9/2005	7:41 AM	40	Process problems	DT PM alignment and cleaning
93	6/29/2005	6:53 AM	21	Soot blowing	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
4/1/2005	6:47 AM	26	No	Within Emission Limits	Soot blowing
4/1/2005	7:47 AM	24	No	Within Emission Limits	Soot blowing
4/1/2005	11:41 AM	21	No	Within Emission Limits	Soot blowing
4/2/2005	3:53 AM	22	No	Within Emission Limits	2X0
4/2/2005	10:47 AM	23	No	Within Emission Limits	Soot blowing
4/2/2005	2:41 PM	26	No	Within Emission Limits	Soot blowing
4/2/2005	5:53 PM	22	No	Within Emission Limits	Soot blowing
4/3/2005	6:47 AM	22	No	Within Emission Limits	Soot blowing
4/3/2005	7:47 AM	23	No	Within Emission Limits	Soot blowing
4/3/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
4/3/2005	7:47 PM	23	No	Within Emission Limits	Soot blowing
4/4/2005	5:54 AM	22	No	Within Emission Limits	Soot blowing
4/4/2005	6:41 AM	22	No	Within Emission Limits	Soot blowing
4/4/2005	7:41 AM	21	No	Within Emission Limits	Soot blowing
4/5/2005	4:47 AM	21	No	Within Emission Limits	Soot blowing
4/5/2005	12:53 PM	24	No	Within Emission Limits	Soot blowing
4/5/2005	1:41 PM	22	No	Within Emission Limits	Soot blowing
4/5/2005	5:47 PM	23	No	Within Emission Limits	Soot blowing
4/5/2005	6:47 PM	23	No	Within Emission Limits	Soot blowing
4/5/2005	7:47 PM	21	No	Within Emission Limits	Soot blowing
4/6/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
4/7/2005	5:53 AM	21	No	Within Emission Limits	Soot blowing
4/7/2005	6:41 AM	22	No	Within Emission Limits	Soot blowing
4/7/2005	7:47 AM	22	No	Within Emission Limits	Soot blowing
4/7/2005	5:59 PM	21	No	Within Emission Limits	Soot blowing
4/7/2005	8:53 PM	25	No	Within Emission Limits	Soot blowing
4/8/2005	5:53 AM	25	No	Within Emission Limits	Soot blowing
4/8/2005	7:47 AM	23	No	Within Emission Limits	Soot blowing
4/8/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
4/8/2005	6:29 PM	21	No	Within Emission Limits	Opacity belt slip w/ over fire air fan
4/9/2005	5:53 AM	23	No	Within Emission Limits	Soot blowing
4/9/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
4/10/2005	5:53 AM	25	No	Within Emission Limits	Soot blowing
4/10/2005	6:47 AM	24	No	Within Emission Limits	Soot blowing
4/10/2005	7:47 AM	22	No	Within Emission Limits	Soot blowing
4/10/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
4/10/2005	6:53 PM	21	No	Within Emission Limits	Soot blowing
4/10/2005	7:53 PM	21	No	Within Emission Limits	Soot blowing
4/11/2005	4:47 PM	23	No	Within Emission Limits	planned outage
4/11/2005	5:17 PM	21	No	Within Emission Limits	planned outage
4/18/2005	1:17 AM	22	No	Within Emission Limits	boiler off
4/20/2005	7:35 PM	23	No	Within Emission Limits	start #5 boiler
4/20/2005	10:05 PM	21	No	Within Emission Limits	start #5 boiler?
4/20/2005	11:05 PM	21	No	Within Emission Limits	start #5 boiler?
4/21/2005	12:11 AM	22	No	Within Emission Limits	Tripped A/C gen
4/21/2005	7:23 AM	23	No	Within Emission Limits	2X0
4/21/2005	8:11 AM	23	No	Within Emission Limits	2X0
4/21/2005	9:47 AM	21	No	Within Emission Limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
4/21/2005	5:47 PM	25	No	Within Emission Limits	Soot blowing
4/21/2005	6:47 PM	26	No	Within Emission Limits	Soot blowing
4/21/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
4/21/2005	8:11 PM	21	No	Within Emission Limits	2X0
4/22/2005	5:53 AM	26	No	Within Emission Limits	Soot blowing
4/22/2005	6:47 AM	27	No	Within Emission Limits	Soot blowing
4/22/2005	7:47 AM	23	No	Within Emission Limits	Soot blowing
4/22/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
4/22/2005	6:47 PM	26	No	Within Emission Limits	Soot blowing
4/22/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
4/22/2005	10:35 PM	21	No	Within Emission Limits	Soot blowing
4/23/2005	6:41 AM	24	No	Within Emission Limits	Soot blowing
4/24/2005	8:53 AM	22	No	Within Emission Limits	Light co fire
4/25/2005	1:47 AM	22	No	Within Emission Limits	Soot blowing
4/25/2005	2:53 AM	26	No	Within Emission Limits	Soot blowing
4/25/2005	3:53 AM	24	No	Within Emission Limits	Soot blowing
4/25/2005	6:53 AM	25	No	Within Emission Limits	Soot blowing
4/25/2005	9:47 AM	25	No	Within Emission Limits	Soot blowing
4/25/2005	6:35 PM	21	No	Within Emission Limits	Soot blowing
4/25/2005	10:47 PM	25	No	Within Emission Limits	Soot blowing
4/26/2005	7:41 AM	27	No	Within Emission Limits	Soot blowing
4/26/2005	10:47 AM	23	No	Within Emission Limits	Soot blowing
4/26/2005	3:47 PM	21	No	Within Emission Limits	Soot blowing
4/26/2005	6:47 PM	23	No	Within Emission Limits	Soot blowing
4/26/2005	7:47 PM	26	No	Within Emission Limits	Soot blowing
4/26/2005	8:47 PM	24	No	Within Emission Limits	Soot blowing
4/27/2005	6:41 AM	26	No	Within Emission Limits	Soot blowing
4/27/2005	7:41 AM	27	No	Within Emission Limits	Soot blowing
4/27/2005	8:47 AM	25	No	Within Emission Limits	Soot blowing
4/27/2005	6:47 PM	21	No	Within Emission Limits	Soot blowing
4/27/2005	7:47 PM	25	No	Within Emission Limits	Soot blowing
4/27/2005	8:47 PM	23	No	Within Emission Limits	Soot blowing
4/28/2005	6:47 AM	27	No	Within Emission Limits	Soot blowing
4/28/2005	7:17 AM	25	No	Within Emission Limits	Reversed BH booster fan
4/28/2005	10:29 AM	21	No	Within Emission Limits	Soot blowing
4/28/2005	5:29 PM	25	No	Within Emission Limits	Tube blown #5
4/28/2005	6:05 PM	21	No	Within Emission Limits	Tube blown #5
5/1/2005	2:47 PM	21	No	Within Emission Limits	Bumping ID fan
5/2/2005	4:23 AM	23	No	Within Emission Limits	Coal fire trip
5/2/2005	10:17 AM	22	No	Within Emission Limits	switch to plant pwr
5/2/2005	4:53 PM	23	No	Within Emission Limits	2X0
5/2/2005	5:05 PM	22	No	Within Emission Limits	2X0
5/2/2005	11:59 PM	27	No	Within Emission Limits	2X0
5/3/2005	1:59 AM	24	No	Within Emission Limits	2X0
5/3/2005	3:47 PM	27	No	Within Emission Limits	2X0
5/3/2005	3:53 PM	21	No	Within Emission Limits	2X0
5/4/2005	12:53 AM	25	No	Within Emission Limits	Soot blowing
5/4/2005	1:47 AM	27	No	Within Emission Limits	Soot blowing

Table 2 - 6 minute Opacity Readings &gt; 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
5/4/2005	2:53 AM	24	No	Within Emission Limits	Soot blowing
5/4/2005	7:47 AM	25	No	Within Emission Limits	Soot blowing
5/4/2005	11:41 AM	27	No	Within Emission Limits	Soot blowing
5/4/2005	7:53 PM	23	No	Within Emission Limits	Soot blowing
5/4/2005	9:53 PM	25	No	Within Emission Limits	Soot blowing
5/4/2005	10:53 PM	22	No	Within Emission Limits	Soot blowing
5/5/2005	6:47 AM	26	No	Within Emission Limits	Soot blowing
5/5/2005	7:47 AM	27	No	Within Emission Limits	Soot blowing
5/5/2005	8:47 AM	22	No	Within Emission Limits	Soot blowing
5/5/2005	5:47 PM	25	No	Within Emission Limits	Soot blowing
5/5/2005	6:53 PM	25	No	Within Emission Limits	Soot blowing
5/5/2005	7:53 PM	24	No	Within Emission Limits	Soot blowing
5/6/2005	6:41 AM	25	No	Within Emission Limits	Soot blowing
5/6/2005	7:41 AM	25	No	Within Emission Limits	Soot blowing
5/6/2005	10:41 AM	21	No	Within Emission Limits	Soot blowing
5/6/2005	5:53 PM	26	No	Within Emission Limits	Soot blowing
5/6/2005	7:53 PM	23	No	Within Emission Limits	Soot blowing
5/7/2005	6:41 AM	25	No	Within Emission Limits	Soot blowing
5/7/2005	7:41 AM	24	No	Within Emission Limits	Soot blowing
5/7/2005	8:41 AM	22	No	Within Emission Limits	Soot blowing
5/7/2005	10:35 AM	21	No	Within Emission Limits	BH fans off.
5/7/2005	6:23 PM	21	No	Within Emission Limits	2X0
5/7/2005	9:53 PM	27	No	Within Emission Limits	Soot blowing
5/8/2005	6:41 AM	22	No	Within Emission Limits	Soot blowing
5/8/2005	7:35 AM	23	No	Within Emission Limits	Soot blowing
5/8/2005	8:41 AM	22	No	Within Emission Limits	Soot blowing
5/8/2005	6:47 PM	22	No	Within Emission Limits	Soot blowing
5/8/2005	9:53 PM	23	No	Within Emission Limits	Soot blowing
5/9/2005	4:53 AM	27	No	Within Emission Limits	2X0
5/9/2005	7:41 AM	26	No	Within Emission Limits	Soot blowing
5/9/2005	8:47 AM	25	No	Within Emission Limits	Soot blowing
5/9/2005	9:59 AM	21	No	Within Emission Limits	2X0
5/9/2005	1:05 PM	21	No	Within Emission Limits	2X0
5/9/2005	3:23 PM	24	No	Within Emission Limits	2X0
5/9/2005	4:05 PM	21	No	Within Emission Limits	2X0
5/9/2005	5:59 PM	23	No	Within Emission Limits	2X0
5/10/2005	12:53 AM	21	No	Within Emission Limits	2X0
5/10/2005	6:47 AM	21	No	Within Emission Limits	Soot blowing
5/10/2005	8:53 PM	23	No	Within Emission Limits	Soot blowing
5/10/2005	9:53 PM	26	No	Within Emission Limits	Soot blowing
5/10/2005	10:53 PM	23	No	Within Emission Limits	Soot blowing
5/11/2005	5:53 AM	24	No	Within Emission Limits	Soot blowing
5/11/2005	6:41 AM	21	No	Within Emission Limits	Soot blowing
5/11/2005	7:47 AM	21	No	Within Emission Limits	Soot blowing
5/12/2005	12:53 AM	23	No	Within Emission Limits	Soot blowing
5/12/2005	1:47 AM	23	No	Within Emission Limits	Soot blowing
5/12/2005	2:53 AM	21	No	Within Emission Limits	Soot blowing
5/12/2005	5:53 AM	26	No	Within Emission Limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
5/12/2005	7:53 AM	25	No	Within Emission Limits	Soot blowing
5/12/2005	5:53 PM	25	No	Within Emission Limits	Soot blowing
5/12/2005	6:53 PM	23	No	Within Emission Limits	Soot blowing
5/12/2005	7:53 PM	22	No	Within Emission Limits	Soot blowing
5/13/2005	5:47 AM	23	No	Within Emission Limits	Soot blowing
5/13/2005	6:47 AM	24	No	Within Emission Limits	Soot blowing
5/13/2005	7:47 AM	22	No	Within Emission Limits	Soot blowing
5/13/2005	11:05 AM	22	No	Within Emission Limits	Center rotor stopped
5/13/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
5/13/2005	7:47 PM	24	No	Within Emission Limits	Soot blowing
5/13/2005	8:47 PM	23	No	Within Emission Limits	Soot blowing
5/14/2005	5:53 AM	23	No	Within Emission Limits	Soot blowing
5/14/2005	7:41 AM	22	No	Within Emission Limits	Soot blowing
5/14/2005	1:47 PM	22	No	Within Emission Limits	2X0
5/14/2005	6:47 PM	21	No	Within Emission Limits	Soot blowing
5/14/2005	7:53 PM	23	No	Within Emission Limits	Soot blowing
5/15/2005	5:47 AM	22	No	Within Emission Limits	Soot blowing
5/15/2005	6:47 AM	25	No	Within Emission Limits	Soot blowing
5/15/2005	7:47 AM	22	No	Within Emission Limits	Soot blowing
5/15/2005	5:53 PM	24	No	Within Emission Limits	Soot blowing
5/15/2005	6:53 PM	24	No	Within Emission Limits	Soot blowing
5/16/2005	5:53 AM	24	No	Within Emission Limits	Soot blowing
5/16/2005	6:41 AM	22	No	Within Emission Limits	Soot blowing
5/16/2005	7:41 AM	23	No	Within Emission Limits	Soot blowing
5/16/2005	5:47 PM	24	No	Within Emission Limits	Soot blowing
5/16/2005	6:47 PM	25	No	Within Emission Limits	Soot blowing
5/16/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
5/17/2005	6:47 AM	25	No	Within Emission Limits	Soot blowing
5/17/2005	9:47 AM	27	No	Within Emission Limits	Soot blowing
5/17/2005	11:29 AM	23	No	Within Emission Limits	Closed BH booster fan
5/17/2005	6:53 PM	23	No	Within Emission Limits	Soot blowing
5/17/2005	7:53 PM	21	No	Within Emission Limits	Soot blowing
5/18/2005	5:47 AM	23	No	Within Emission Limits	Soot blowing
5/18/2005	2:41 PM	25	No	Within Emission Limits	?lost #10 boiler
5/19/2005	3:53 AM	24	No	Within Emission Limits	Soot blowing
5/19/2005	4:53 AM	22	No	Within Emission Limits	Soot blowing
5/19/2005	6:47 AM	23	No	Within Emission Limits	Soot blowing
5/19/2005	7:47 AM	25	No	Within Emission Limits	Soot blowing
5/19/2005	8:41 AM	24	No	Within Emission Limits	Soot blowing
5/19/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
5/19/2005	6:53 PM	22	No	Within Emission Limits	Soot blowing
5/19/2005	7:53 PM	22	No	Within Emission Limits	Soot blowing
5/20/2005	6:29 AM	22	No	Within Emission Limits	2X0
5/20/2005	7:41 AM	25	No	Within Emission Limits	Soot blowing
5/20/2005	8:47 AM	27	No	Within Emission Limits	Soot blowing
5/20/2005	5:53 PM	23	No	Within Emission Limits	Soot blowing
5/20/2005	6:53 PM	25	No	Within Emission Limits	Soot blowing
5/20/2005	7:53 PM	22	No	Within Emission Limits	Soot blowing



Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
5/21/2005	6:47 AM	24	No	Within Emission Limits	Soot blowing
5/21/2005	8:47 AM	25	No	Within Emission Limits	Soot blowing
5/21/2005	6:47 PM	21	No	Within Emission Limits	Soot blowing
5/22/2005	6:47 AM	26	No	Within Emission Limits	Soot blowing
5/22/2005	7:41 AM	23	No	Within Emission Limits	Soot blowing
5/22/2005	6:47 PM	25	No	Within Emission Limits	Soot blowing
5/22/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
5/23/2005	7:47 AM	22	No	Within Emission Limits	Soot blowing
5/23/2005	9:47 AM	23	No	Within Emission Limits	Soot blowing
5/23/2005	6:47 PM	23	No	Within Emission Limits	Soot blowing
5/23/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
5/24/2005	6:47 AM	21	No	Within Emission Limits	Soot blowing
5/24/2005	7:47 AM	21	No	Within Emission Limits	Soot blowing
5/24/2005	10:05 AM	31	No	Within Emission Limits	#5 opacity meter work
5/24/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
5/25/2005	6:47 AM	24	No	Within Emission Limits	Soot blowing
5/25/2005	12:47 PM	24	No	Within Emission Limits	Soot blowing
5/25/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
5/26/2005	5:53 AM	25	No	Within Emission Limits	Soot blowing
5/26/2005	7:47 AM	21	No	Within Emission Limits	Soot blowing
5/26/2005	5:53 PM	22	No	Within Emission Limits	Soot blowing
5/26/2005	6:53 PM	21	No	Within Emission Limits	Soot blowing
5/27/2005	5:53 AM	25	No	Within Emission Limits	Soot blowing
5/27/2005	7:47 AM	27	No	Within Emission Limits	Soot blowing
5/27/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
5/27/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
5/28/2005	5:47 AM	22	No	Within Emission Limits	Soot blowing
5/28/2005	6:47 AM	26	No	Within Emission Limits	Soot blowing
5/28/2005	7:47 AM	25	No	Within Emission Limits	Soot blowing
5/28/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
5/29/2005	6:47 AM	21	No	Within Emission Limits	Soot blowing
5/29/2005	8:47 AM	22	No	Within Emission Limits	Soot blowing
5/29/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
5/30/2005	7:47 AM	21	No	Within Emission Limits	Soot blowing
5/30/2005	8:47 AM	24	No	Within Emission Limits	Soot blowing
5/30/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
5/31/2005	6:53 AM	23	No	Within Emission Limits	Soot blowing
5/31/2005	7:47 AM	23	No	Within Emission Limits	Soot blowing
5/31/2005	8:47 AM	21	No	Within Emission Limits	Soot blowing
5/31/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
5/31/2005	6:47 PM	21	No	Within Emission Limits	Soot blowing
5/31/2005	7:47 PM	21	No	Within Emission Limits	Soot blowing
6/1/2005	6:47 AM	22	No	Within Emission Limits	Soot blowing
6/1/2005	9:47 AM	22	No	Within Emission Limits	Soot blowing
6/1/2005	10:47 AM	21	No	Within Emission Limits	Soot blowing
6/1/2005	6:47 PM	22	No	Within Emission Limits	Soot blowing
6/1/2005	7:47 PM	23	No	Within Emission Limits	Soot blowing
6/3/2005	6:41 AM	21	No	Within Emission Limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
6/3/2005	7:47 AM	25	No	Within Emission Limits	Soot blowing
6/3/2005	8:41 AM	22	No	Within Emission Limits	Soot blowing
6/3/2005	7:53 PM	22	No	Within Emission Limits	Soot blowing
6/4/2005	5:53 AM	22	No	Within Emission Limits	Soot blowing
6/4/2005	6:47 AM	23	No	Within Emission Limits	Soot blowing
6/4/2005	8:47 AM	25	No	Within Emission Limits	Soot blowing
6/4/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
6/5/2005	7:41 AM	21	No	Within Emission Limits	Soot blowing
6/6/2005	5:47 AM	21	No	Within Emission Limits	Soot blowing
6/6/2005	6:41 AM	23	No	Within Emission Limits	Soot blowing
6/7/2005	5:53 AM	22	No	Within Emission Limits	Soot blowing
6/7/2005	6:41 AM	24	No	Within Emission Limits	Soot blowing
6/7/2005	7:41 AM	21	No	Within Emission Limits	Soot blowing
6/7/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
6/7/2005	8:47 PM	23	No	Within Emission Limits	Soot blowing
6/8/2005	5:47 AM	22	No	Within Emission Limits	Soot blowing
6/8/2005	6:41 AM	23	No	Within Emission Limits	Soot blowing
6/8/2005	7:41 AM	23	No	Within Emission Limits	Soot blowing
6/8/2005	7:47 PM	21	No	Within Emission Limits	Soot blowing
6/9/2005	6:41 AM	22	No	Within Emission Limits	Soot blowing
6/9/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
6/10/2005	5:47 AM	22	No	Within Emission Limits	Soot blowing
6/10/2005	6:47 AM	27	No	Within Emission Limits	Soot blowing
6/10/2005	7:53 AM	22	No	Within Emission Limits	Soot blowing
6/10/2005	6:53 PM	21	No	Within Emission Limits	Soot blowing
6/11/2005	6:41 AM	22	No	Within Emission Limits	Soot blowing
6/11/2005	7:41 AM	23	No	Within Emission Limits	Soot blowing
6/12/2005	6:47 AM	24	No	Within Emission Limits	Soot blowing
6/12/2005	7:47 AM	26	No	Within Emission Limits	Soot blowing
6/12/2005	8:41 AM	24	No	Within Emission Limits	Soot blowing
6/13/2005	6:47 AM	24	No	Within Emission Limits	Soot blowing
6/13/2005	7:41 AM	24	No	Within Emission Limits	Soot blowing
6/13/2005	5:53 PM	21	No	Within Emission Limits	Soot Blowing
6/14/2005	5:47 AM	23	No	Within Emission Limits	Soot Blowing
6/14/2005	7:47 AM	21	No	Within Emission Limits	Soot Blowing
6/14/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
6/15/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
6/15/2005	6:47 PM	21	No	Within Emission Limits	Soot blowing
6/16/2005	7:41 AM	21	No	Within Emission Limits	Soot blowing
6/16/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
6/16/2005	6:47 PM	21	No	Within Emission Limits	Soot blowing
6/16/2005	7:47 PM	21	No	Within Emission Limits	Soot blowing
6/17/2005	6:41 AM	24	No	Within Emission Limits	Soot blowing
6/17/2005	5:47 PM	21	No	Within Emission Limits	Soot blowing
6/18/2005	5:53 AM	23	No	Within Emission Limits	Soot blowing
6/18/2005	6:47 AM	24	No	Within Emission Limits	Soot blowing
6/19/2005	7:41 AM	22	No	Within Emission Limits	Soot blowing
6/19/2005	8:48 AM	27	No	Within Emission Limits	Soot blowing

Table 2 - 6 minute Opacity Readings > 20% (excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
6/19/2005	9:47 AM	21	No	Within Emission Limits	Soot blowing
6/19/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
6/19/2005	6:53 PM	21	No	Within Emission Limits	Soot blowing
6/20/2005	5:53 AM	23	No	Within Emission Limits	soot blowing
6/20/2005	6:47 AM	27	No	Within Emission Limits	soot blowing
6/20/2005	7:47 AM	21	No	Within Emission Limits	Soot blowing
6/20/2005	5:53 PM	21	No	Within Emission Limits	Soot blowing
6/21/2005	5:53 AM	21	No	Within Emission Limits	Soot blowing
6/21/2005	6:47 AM	25	No	Within Emission Limits	Soot blowing
6/21/2005	6:53 PM	22	No	Within Emission Limits	Soot blowing
6/21/2005	7:53 PM	21	No	Within Emission Limits	Soot blowing
6/22/2005	6:41 AM	21	No	Within Emission Limits	Soot blowing
6/22/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
6/22/2005	6:47 PM	22	No	Within Emission Limits	Soot blowing
6/22/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
6/23/2005	5:53 AM	22	No	Within Emission Limits	Soot blowing
6/23/2005	6:47 AM	23	No	Within Emission Limits	Soot blowing
6/23/2005	6:47 PM	21	No	Within Emission Limits	Soot blowing
6/23/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
6/24/2005	5:53 AM	23	No	Within Emission Limits	Soot blowing
6/24/2005	6:41 AM	24	No	Within Emission Limits	Soot blowing
6/24/2005	11:17 AM	21	No	Within Emission Limits	2X0
6/24/2005	7:47 PM	22	No	Within Emission Limits	Soot blowing
6/24/2005	8:47 PM	22	No	Within Emission Limits	Soot blowing
6/25/2005	5:47 AM	22	No	Within Emission Limits	Soot blowing
6/25/2005	6:41 AM	23	No	Within Emission Limits	Soot blowing
6/25/2005	5:47 PM	22	No	Within Emission Limits	Soot blowing
6/25/2005	7:47 PM	21	No	Within Emission Limits	Soot blowing
6/26/2005	8:41 AM	23	No	Within Emission Limits	Soot blowing
6/27/2005	5:53 AM	21	No	Within Emission Limits	Soot blowing
6/27/2005	6:41 AM	21	No	Within Emission Limits	Soot blowing
6/28/2005	2:23 AM	21	No	Within Emission Limits	Soot blowing
6/28/2005	5:53 AM	21	No	Within Emission Limits	Soot blowing
6/28/2005	6:47 AM	25	No	Within Emission Limits	Soot blowing
6/29/2005	7:41 AM	22	No	Within Emission Limits	Soot blowing
6/30/2005	6:41 AM	23	No	Within Emission Limits	Soot blowing
6/30/2005	7:47 AM	22	No	Within Emission Limits	Soot blowing
6/30/2005	6:53 PM	21	No	Within Emission Limits	Soot blowing

# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## AIR QUALITY DIVISION

### Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity Reporting period: Second quarter, 2005

Company: Cargill Salt Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1) Total Source Operation Time 114557 min

Monitor Manufacturer, Model No., & Serial No.: Durag DR 90, #403074

#### Emission Data Summary

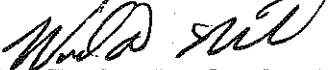
1	Duration of Excess Emissions (EE) in reporting period due to:	
a.	Startup/Shutdown	<u>66</u>
b.	Soot Blowing	<u>192</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>300</u>
e.	Other Known Causes	<u>0</u>
f.	Unknown Causes	<u>0</u>
2	Total Durations of EE's	<u>558</u>
3	Total Duration of EE's/Total Source Operation Time X 100	<u>0.49 %</u>

#### CEM System Summary

1	CEM system downtime in reporting period due to:	
a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>72</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>
2	Total CEM System Downtime	<u>72</u>
3	Total CEM System Downtime/Total Source Operation Time X 100	<u>0.06 %</u>

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: 

Date: 7/21/05



**RECEIVED**

MAR 22 2006  
AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

July 15, 2005

Ms. Teresa Seidel  
Air Quality Division  
Michigan Department of Environmental Quality  
27700 Donald Court  
Warren, MI 48092-2793

Re: Boiler No. 10 Semi-annual Emissions Report for the 1st half of 2005

Dear Ms. Seidel:

This Semiannual Emissions Report is being submitted in accordance with the reporting requirements from the State of Michigan Renewable Operating Permit No. 199700084 Table E-01.3 EGBOILER10. Boiler No. 10 was operated using Natural Gas only during the entire reporting period. No excess emissions occurred during the semiannual reporting period of the first half of 2005. The boiler operated for 4249 hours for the first half of 2005.

The average NO<sub>x</sub> and CO<sub>2</sub> emission rates (lb/MM Btu heat input) and the 30-day average NO<sub>x</sub> emission rates (lb/MM Btu heat input) are summarized in Attachment A.

There was zero operating days when the 30-day average NO<sub>x</sub> emission rate exceeded the limit under 60.44b.

There was no emission data excluded from the calculations of average emission rates.

"F" factor is 1,040 dscf/MMBtu.

The pollutant concentrations did not exceed full span of the CEMS during the first half of the year.

On April 12, 2005 to April 14, 2005 the emission monitor was improperly calibrated. The monitor's self-calibration corrected the error.

On May 5, 2005 the NO<sub>x</sub> and CO<sub>2</sub> emission monitor was improperly self-calibrated. On June 7, 2005 the error was noticed and corrected. The MDEQ Air Quality Division was notified of this event on June 13, 2005.

No modifications were made to the CEM that could affect the ability of the CEMS to comply with PS 2 or 3.

Attachment B contains the daily CEMS drift test.

Attachment C contains the NO<sub>x</sub> / CO<sub>2</sub> Span gas Certificate of Analysis.

If you have any questions please call me at 810-326-2841.

Sincerely,

A handwritten signature in black ink, appearing to read "Wade D. Richards". The signature is fluid and cursive, with the first name "Wade" being more prominent.

Wade D. Richards  
Powerhouse Superintendent

cc: EHS File  
Don Chutas  
Tony Hodny

Attachments

Boiler No. 10 NO<sub>x</sub> Daily Averages, Emission Data, 30-Day Average NO<sub>x</sub>  
Boiler No. 10 Daily Calibration (zero / span)  
Certificate of Analysis / EPA Protocol Gas

**Attachment A**  
**Boiler 10 Emissions Data 30-day average NOx**

Date	NOx Parts per Million	NOx Pounds per Mbtu	CO2	30-Day Average	Comments
6/30/2005	30.11	0.055	6.85	0.064	
6/29/2005	31.49	0.057	6.82	0.065	
6/28/2005	33.37	0.058	7.12	0.066	
6/27/2005	33.14	0.058	7.10	0.067	
6/26/2005	34.30	0.060	7.08	0.067	
6/25/2005	32.69	0.058	7.00	0.068	
6/24/2005	34.48	0.060	7.10	0.069	
6/23/2005	38.58	0.066	7.22	0.070	
6/22/2005	35.94	0.063	7.02	0.070	
6/21/2005	34.60	0.061	7.08	0.071	
6/20/2005	37.06	0.064	7.20	0.072	
6/19/2005	37.02	0.064	7.14	0.072	
6/18/2005	37.21	0.065	7.09	0.073	
6/17/2005	36.90	0.066	6.98	0.074	
6/16/2005	35.33	0.064	6.89	0.074	
6/15/2005	33.64	0.063	6.59	0.075	
6/14/2005	31.56	0.058	6.72	0.076	
6/13/2005	29.78	0.055	6.66	0.078	
6/12/2005	30.70	0.056	6.75	0.079	
6/11/2005	31.51	0.057	6.87	0.081	
6/10/2005	33.35	0.060	6.94	0.082	
6/9/2005	32.69	0.059	6.85	0.083	
6/8/2005	34.22	0.061	6.94	0.084	
6/7/2005	40.43	0.072	6.85	0.085	Improper calibration
6/6/2005	42.78	0.077	6.88	0.085	Improper calibration
6/5/2005	39.58	0.072	6.79	0.085	Improper calibration
6/4/2005	43.82	0.078	6.98	0.085	Improper calibration
6/3/2005	46.03	0.081	7.04	0.085	Improper calibration
6/2/2005	48.10	0.084	7.07	0.085	Improper calibration
6/1/2005	39.96	0.070	6.10	0.085	Improper calibration
5/31/2005	46.64	0.079	7.29	0.085	Improper calibration
5/30/2005	47.55	0.082	7.19	0.085	Improper calibration
5/29/2005	47.82	0.083	7.14	0.085	Improper calibration
5/28/2005	49.14	0.085	7.17	0.085	Improper calibration
5/27/2005	50.83	0.087	7.27	0.085	Improper calibration
5/26/2005	49.04	0.084	7.24	0.085	Improper calibration
5/25/2005	52.07	0.088	7.35	0.085	Improper calibration
5/24/2005	49.09	0.083	7.35	0.085	
5/23/2005	42.24	0.074	6.96	0.085	
5/22/2005	43.87	0.077	7.09	0.086	
5/21/2005	46.19	0.078	7.31	0.086	
5/20/2005	47.05	0.080	7.28	0.087	
5/19/2005	46.02	0.079	7.20	0.087	
5/18/2005	43.47	0.075	7.11	0.088	
5/17/2005	44.23	0.077	7.11	0.088	
5/16/2005	43.81	0.078	7.02	0.089	
5/15/2005	46.12	0.081	7.04	0.090	
5/14/2005	46.51	0.080	7.25	0.091	

5/13/2005	49.54	0.084	7.30	0.090	
5/12/2005	48.27	0.081	7.37	0.090	
5/11/2005	46.38	0.079	7.29	0.090	
5/10/2005	47.47	0.080	7.36	0.090	
5/9/2005	51.17	0.086	7.37	0.090	
5/8/2005	50.32	0.084	7.41	0.090	
5/7/2005	52.11	0.086	7.51	0.090	
5/6/2005	53.33	0.088	7.50	0.090	
5/5/2005	50.32	0.084	7.44	0.090	
5/4/2005	52.05	0.086	7.51	0.090	
5/3/2005	52.54	0.087	7.46	0.090	
5/2/2005	53.21	0.090	7.31	0.090	
5/1/2005	62.73	0.105	7.45	0.089	
4/30/2005	62.68	0.105	7.42	0.089	
4/29/2005	62.74	0.105	7.41	0.088	
4/28/2005	54.07	0.092	7.27	0.087	
4/27/2005	47.64	0.083	7.13	0.087	
4/26/2005	46.07	0.082	7.02	0.087	
4/25/2005	49.70	0.088	7.02	0.087	
4/24/2005	54.16	0.094	7.14	0.087	
4/23/2005	55.41	0.095	7.19	0.087	
4/22/2005	54.56	0.092	7.33	0.086	
4/21/2005	55.31	0.092	7.44	0.086	
4/20/2005	55.10	0.092	7.44	0.089	
4/19/2005	59.09	0.097	7.54	0.085	
4/18/2005	61.96	0.100	7.66	0.085	
4/17/2005	62.68	0.102	7.67	0.085	
4/16/2005	65.41	0.104	7.80	0.084	
4/15/2005	59.36	0.096	7.68	0.084	
4/14/2005	23.54	0.059	2.63	0.083	Improper calibration
4/13/2005	5.42	0.017	0.41	0.083	Improper calibration
4/12/2005	10.92	0.000	0.16	0.083	Improper calibration
4/11/2005	43.65	0.073	6.03	0.083	
4/10/2005	44.71	0.076	7.30	0.084	
4/9/2005	42.83	0.074	7.16	0.084	
4/8/2005	48.08	0.081	7.39	0.085	
4/7/2005	48.67	0.081	7.43	0.085	
4/6/2005	47.68	0.080	7.37	0.086	
4/5/2005	53.16	0.084	7.87	0.086	
4/4/2005	54.45	0.087	7.78	0.086	
4/3/2005	49.31	0.085	7.25	0.086	
4/2/2005	51.18	0.084	7.55	0.086	
4/1/2005	53.16	0.085	7.73	0.086	
3/31/2005	50.08	0.081	7.66	0.086	
3/30/2005	53.94	0.082	8.33	0.087	
3/29/2005	53.20	0.087	7.58	0.087	
3/28/2005	49.58	0.084	7.18	0.087	
3/27/2005	49.52	0.083	7.43	0.087	
3/26/2005	56.49	0.088	8.01	0.087	
3/25/2005	51.54	0.084	7.65	0.087	
3/24/2005	54.75	0.087	7.78	0.088	
3/23/2005	52.42	0.086	7.56	0.087	
3/22/2005	43.65	0.077	7.01	0.087	



3/21/2005	50.69	0.084	7.49	0.088	
3/20/2005	45.40	0.078	7.27	0.088	
3/19/2005	55.08	0.087	7.89	0.088	
3/18/2005	56.45	0.087	8.10	0.087	
3/17/2005	54.52	0.086	7.89	0.087	
3/16/2005	54.54	0.086	7.92	0.087	
3/15/2005	55.38	0.086	8.03	0.086	
3/14/2005	55.87	0.087	7.98	0.086	
3/13/2005	49.24	0.083	7.35	0.086	
3/12/2005	53.32	0.090	7.35	0.087	
3/11/2005	54.82	0.091	7.45	0.087	
3/10/2005	56.95	0.095	7.44	0.086	
3/9/2005	58.58	0.098	7.42	0.085	
3/8/2005	55.61	0.093	7.45	0.085	
3/7/2005	50.29	0.085	7.32	0.084	
3/6/2005	50.89	0.085	7.42	0.084	
3/5/2005	55.71	0.089	7.74	0.084	
3/4/2005	58.12	0.092	7.85	0.084	
3/3/2005	54.11	0.082	8.13	0.083	
3/2/2005	57.64	0.091	7.82	0.083	
3/1/2005	53.19	0.087	7.57	0.083	
2/28/2005	53.66	0.086	7.70	0.082	
2/27/2005	56.48	0.091	7.74	0.082	
2/26/2005	57.10	0.089	8.01	0.082	
2/25/2005	56.42	0.090	7.78	0.082	
2/24/2005	56.36	0.091	7.63	0.081	
2/23/2005	52.62	0.087	7.51	0.081	
2/22/2005	51.23	0.085	7.49	0.081	
2/21/2005	50.36	0.084	7.45	0.080	
2/20/2005	51.81	0.085	7.57	0.080	
2/19/2005	55.85	0.086	8.05	0.080	
2/18/2005	53.78	0.090	7.43	0.080	
2/17/2005	29.83	0.059	4.24	0.079	
2/16/2005	43.52	0.077	6.95	0.080	
2/15/2005	44.94	0.078	7.10	0.080	
2/14/2005	45.87	0.080	7.07	0.080	
2/13/2005	49.55	0.084	7.34	0.080	
2/12/2005	52.61	0.088	7.38	0.080	
2/11/2005	55.82	0.092	7.54	0.080	
2/10/2005	50.96	0.085	7.38	0.079	
2/9/2005	42.99	0.074	7.15	0.079	
2/8/2005	44.68	0.075	7.30	0.079	
2/7/2005	47.33	0.077	7.61	0.079	
2/6/2005	47.54	0.076	7.69	0.079	
2/5/2005	51.76	0.081	7.90	0.079	
2/4/2005	53.56	0.083	7.99	0.079	
2/3/2005	52.92	0.084	7.78	0.079	
2/2/2005	49.34	0.079	7.72	0.079	
2/1/2005	54.46	0.083	8.09	0.079	
1/31/2005	52.98	0.080	8.18	0.078	
1/30/2005	48.36	0.075	8.02	0.079	
1/29/2005	53.59	0.081	8.18	0.079	
1/28/2005	52.74	0.079	8.28	0.079	

1/27/2005	51.52	0.081	7.91	0.079	
1/26/2005	47.07	0.077	7.58	0.079	
1/25/2005	47.12	0.077	7.59	0.079	
1/24/2005	51.86	0.082	7.87	0.079	
1/23/2005	48.65	0.076	7.88	0.077	
1/22/2005	48.10	0.077	7.75	0.076	
1/21/2005	52.04	0.079	8.24	0.076	
1/20/2005	51.94	0.080	8.10	0.076	
1/19/2005	50.23	0.078	7.97	0.077	
1/18/2005	52.28	0.079	7.72	0.078	
1/17/2005	52.66	0.082	8.00	0.078	
1/16/2005	51.39	0.082	7.79	0.078	
1/15/2005	47.22	0.077	7.58	0.078	
1/14/2005	48.15	0.079	7.45	0.078	
1/13/2005	46.49	0.078	7.35	0.078	
1/12/2005	42.98	0.074	7.15	0.077	
1/11/2005	45.83	0.077	7.34	0.078	
1/10/2005	45.87	0.079	7.16	0.078	
1/9/2005	45.92	0.077	7.35	0.078	
1/8/2005	50.86	0.083	7.62	0.078	
1/7/2005	49.87	0.082	7.52	0.077	
1/6/2005	46.05	0.079	7.22	0.077	
1/5/2005	47.00	0.079	7.39	0.077	
1/4/2005	42.69	0.074	7.17	0.077	
1/3/2005	42.03	0.073	7.10	0.077	
1/2/2005	46.82	0.077	7.53	0.077	
1/1/2005	57.04	0.089	7.97	0.077	

**Attachment B**  
**Boiler 10 NOx Daily Calibrations**

Date	NOx Parts per Million		CO2	
	Zero	Span	Zero	Span
6/30/2005	0.48	51.46	0.09	11.05
6/29/2005	0.48	51.65	0.1	11.1
6/28/2005	0.48	51.72	0.1	11.14
6/27/2005	0.41	51.87	0.09	11.17
6/26/2005	0.41	51.95	0.08	11.17
6/25/2005	0.45	51.62	0.1	11.1
6/24/2005	0.43	51.7	0.1	11.13
6/23/2005	0.49	51.8	0.12	11.25
6/22/2005	0.48	51.58	0.11	11.12
6/21/2005	0.48	51.63	0.12	11.18
6/20/2005	0.32	52.12	0.09	11.25
6/19/2005	0.35	51.98	0.09	11.19
6/18/2005	0.36	51.67	0.09	11.03
6/17/2005	0.33	51.39	0.07	10.89
6/16/2005	0.33	51.27	0.08	10.83
6/15/2005	0.28	51.37	0.05	10.69
6/14/2005	0.28	51.59	0.06	10.82
6/13/2005	0.25	51.76	0.06	10.86
6/12/2005	0.25	51.99	0.06	10.99
6/11/2005	0.25	52.12	0.05	10.99
6/10/2005	0.24	52.09	0.05	10.96
6/9/2005	0.27	51.97	0.06	10.96
6/8/2005	0.32	52.16	0.08	10.98
6/7/2005	44.62	44.9	7.11	7.13
6/6/2005	41.81	41.74	6.85	6.89
6/5/2005	40.49	40.55	6.81	6.8
6/4/2005	44	44.11	6.99	7
6/3/2005	44.5	44.5	7.04	7.02
6/2/2005	47.18	47.34	7.13	7.11
6/1/2005	43.19	46.22	6.88	6.88
5/31/2005	43.45	44.66	7.04	7.11
5/30/2005	50.42	50.65	7.2	7.19
5/29/2005	47.59	47.36	7.06	7.03
5/28/2005	48.1	48.48	7.1	7.05
5/27/2005	49.53	49.32	7.17	7.19
5/26/2005	49.65	49.68	7.18	7.18
5/25/2005	51.7	49.73	7.17	7.01
5/24/2005	0.02	53.97	0.05	11.03
5/23/2005	0	56.94	0.02	10.56
5/22/2005	0	57.36	0.01	10.83
5/21/2005	0	57.96	0.04	10.96
5/20/2005	0	57.7	0.08	10.89
5/19/2005	0	57.86	0.04	10.97
5/18/2005	0	58.37	0.07	11.12
5/17/2005	0	58.19	0.04	11.03
5/16/2005	0	58.07	0.04	10.94
5/15/2005	0	57.63	0.02	10.74

5/14/2005	0	57.66	0.09	10.85
5/13/2005	0	58.25	0.06	11.14
5/12/2005	0	58.65	0.09	11.29
5/11/2005	0	56.9	0.09	11.06
5/10/2005	0	57.08	0.02	10.86
5/9/2005	0	57.54	0.01	10.95
5/8/2005	0	58.09	0.05	11.05
5/7/2005	0	57.87	0.05	10.96
5/6/2005	0	58.32	0.08	11.15
5/5/2005	0	58.34	0.09	11.32
5/4/2005	0	58.37	0.06	11.19
5/3/2005	0	57.68	0.11	11.06
5/2/2005	0	57.36	0.04	10.84
5/1/2005	0	57.75	0.01	10.9
4/30/2005	0	57.54	0.01	10.86
4/29/2005	0	57.87	0.02	10.92
4/28/2005	0	57.41	0.05	10.84
4/27/2005	0	56.59	0.06	10.63
4/26/2005	0	56.69	0.04	10.55
4/25/2005	0	56.95	0	10.41
4/24/2005	0	56.65	0.02	10.47
4/23/2005	0	56.89	0.04	10.57
4/22/2005	0	57.69	0.03	10.8
4/21/2005	0	58.2	0.02	10.99
4/20/2005	0	56.81	0.04	10.93
4/19/2005	0	57.6	0	10.98
4/18/2005	0	58.62	0.01	11.1
4/17/2005	0	58.55	0.01	11.17
4/16/2005	0	59.3	0.03	11.36
4/15/2005	0	60.52	0.14	11.39
4/14/2005	0	0	4.08	4.19
4/13/2005	28.3	70.62	0	10.36
4/12/2005	38.22	98.39	0.09	10.65
4/11/2005	0	58.22	0.12	11.25
4/10/2005	0	57.8	0.16	11.16
4/9/2005	0	57.79	0.2	11.22
4/8/2005	0	58.08	0.18	11.16
4/7/2005	0	57.7	0.08	10.9
4/6/2005	0	58.01	0.19	11.19
4/5/2005	0	58.17	0.52	11.6
4/4/2005	0	57.89	0.16	11.08
4/3/2005	0	57.09	0.2	10.87
4/2/2005	0	56.58	0.38	10.95
4/1/2005	0	57.72	0.32	11.34
3/31/2005	0	57.06	0.43	11.11
3/30/2005	0	57.3	0.24	11.15
3/29/2005	0	57.39	0.31	11.12
3/28/2005	0	56.89	0.19	10.83
3/27/2005	-0.07	57.97	0.18	11.12
3/26/2005	0	58.04	0.39	11.44
3/25/2005	0	57.83	0.19	11.13

3/24/2005	0	57.82	0.37	11.31
3/23/2005	0	57.51	0.18	11.03
3/22/2005	0	57.22	0.16	11.09
3/21/2005	0	57.39	0.13	11.07
3/20/2005	0	57.23	0.14	10.99
3/19/2005	-0.07	57.81	0.42	11.36
3/18/2005	-0.07	57.83	0.29	11.24
3/17/2005	0	58.07	0.9	11.9
3/16/2005	0	58.04	0.12	11.14
3/15/2005	-0.07	58.42	0.57	11.69
3/14/2005	0	57.74	0.31	11.21
3/13/2005	0	57.38	0.11	10.87
3/12/2005	0	55.94	0.1	10.39
3/11/2005	0	56.73	0.28	10.8
3/10/2005	0	57.67	0	10.73
3/9/2005	0	57.79	0	10.79
3/8/2005	0	56.83	0.21	10.83
3/7/2005	0	55.47	0.18	10.65
3/6/2005	0	56.49	0.22	10.91
3/5/2005	0	57.95	0.22	11.1
3/4/2005	0	58.25	0.33	11.18
3/3/2005	0	56.09	0.51	11.39
3/2/2005	0	57.29	0.18	10.93
3/1/2005	0	55.85	0.66	11.21
2/28/2005	0	57.18	0.22	10.9
2/27/2005	0	58.72	0.18	11.35
2/26/2005	-0.08	58.05	0.32	11.39
2/25/2005	0	57.9	0.32	11.3
2/24/2005	0	57.94	0.05	11.1
2/23/2005	0	57.84	0.06	11.17
2/22/2005	0	56.77	0.12	11.12
2/21/2005	0	56.68	0.2	10.95
2/20/2005	0	58.21	0.18	11.35
2/19/2005	0	57.78	0.62	11.63
2/18/2005	0	57.56	0.01	10.97
2/17/2005	0	55.24	0.06	10.64
2/16/2005	0	55.92	0.09	10.81
2/15/2005	0	56.2	0.08	10.91
2/14/2005	0	55.93	0.1	10.65
2/13/2005	0	56.87	0.13	11.08
2/12/2005	0	56.4	0.12	10.82
2/11/2005	0	57.49	0.09	11
2/10/2005	0	49.46	0.09	10.93
2/9/2005	0	48.34	0.13	10.94
2/8/2005	0.12	54.31	0.24	11.42
2/7/2005	0.1	54.64	0.24	11.53
2/6/2005	0.11	55.16	0.25	11.68
2/5/2005	0.09	55.5	0.19	11.6
2/4/2005	0.12	55.37	0.26	11.69
2/3/2005	0.1	55.12	0.2	11.5
2/2/2005	0.1	55.65	0.19	11.68

2/1/2005	0.1	55.65	0.33	11.8
1/31/2005	0.12	55.54	0.6	11.98
1/30/2005	0.1	55.29	0.36	11.59
1/29/2005	0.09	55.94	0.51	11.93
1/28/2005	0.07	56.05	0.28	11.93
1/27/2005	0.06	55.91	0.18	11.64
1/26/2005	0.12	53.85	0.3	11.15
1/25/2005	0.14	54.6	0.5	11.59
1/24/2005	0.08	55.26	0.29	11.42
1/23/2005	0.14	55.34	0.72	12.07
1/22/2005	0.11	55.05	0.57	11.59
1/21/2005	0.11	55.26	0.55	11.81
1/20/2005	0.23	55.14	0.23	11.42
1/19/2005	0.46	54.99	0.92	11.95
1/18/2005	4.03	60.16	0.5	12.14
1/17/2005	0.06	56.46	0.25	11.78
1/16/2005	0.09	56.79	0.13	11.74
1/15/2005	0.1	56.51	0.05	11.62
1/14/2005	0.14	55.53	0.16	11.46
1/13/2005	0.12	54.27	0.16	10.96
1/12/2005	0.12	54.55	0.15	11.07
1/11/2005	0.13	55.24	0.24	11.44
1/10/2005	0.12	54.62	0.17	11.24
1/9/2005	0.14	55.55	0.17	11.5
1/8/2005	0.12	55.19	0.16	11.29
1/7/2005	0.14	55.71	0.13	11.36
1/6/2005	0.12	54.67	0.16	11.04
1/5/2005	0.12	55.5	0.12	11.39
1/4/2005	0.12	55.66	0.13	11.42
1/3/2005	0.14	55.43	0.17	11.49
1/2/2005	0.15	55.88	0.2	11.55
1/1/2005	0.14	56.08	0.19	11.66

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx  
Diluent: O2

Reporting period: Second half of 2005

Company: Cargill Salt

Unit Description: Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmbtu 30 day aver Total Source Operation Time 4,273 hours

Monitor Manufacturer, Model No., & Serial No.: Thermo Env, # 42H Cheniluminescence, SN

**Emission Data Summary**

1 Duration of Excess Emissions (EE) in reporting period due to:

a.	Startup/Shutdown	<u>0</u>
b.	Soot Blowing	<u>0</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>0</u>
e.	Other Known Causes	<u>0</u>
f.	Unknown Causes	<u>0</u>

2 Total Durations of EE's

3 Total Duration of EE's/Total Source Operation Time X 100 0 %

**CEM System Summary**

1 CEM system downtime in reporting period due to:

a.	Monitor Equipment Malfunctions	<u>24480</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>0</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>

2 Total CEM System Downtime 24480

3 Total CEM System Downtime/Total Source Operation Time X 100 9.55 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



Praxair Distribution, Inc.  
145 Shimersville Road  
Bethlehem, PA 18015  
Tel: (610) 691-2474  
Fax: (610) 758-9103

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 181346-00

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 24.9PPM GMIS VS.	1683B	CAL-013256	48.74PPM
CARBON DIOXIDE 17.13% GMIS VS.	2745	CAL-010471	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	NITRIC OXIDE 24.9PPM GMIS VS	ANALYZER MAKE	TECO MODEL 42C 42CHL-55533-304
ANALYTICAL PRINCIPLE	CHEMILUMINESCENCE	LAST CALIBRATION DATE	04/30/03
FIRST ANALYSIS DATE	04/28/03	SECOND ANALYSIS DATE	05/05/03
Z 0.0 R 24.8 C 23.5 CONC. 23.5		Z 0.0 R 24.9 C 23.6 CONC. 23.5	
R 25.0 Z 0.0 C 23.6 CONC. 23.6		R 25.0 Z 0.0 C 23.9 CONC. 23.8	
Z 0.0 C 23.5 R 25.0 CONC. 23.5		Z 0.0 C 24.0 R 25.0 CONC. 23.8	
U/M PPM	MEAN TEST ASSAY 23.5	U/M PPM	MEAN TEST ASSAY 23.7
2. COMPONENT	CARBON DIOXIDE 17.13% GMIS VS	ANALYZER MAKE	SIEMENS ULTRAMAT 5B SN: D2-412
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	03/31/03
FIRST ANALYSIS DATE	04/28/03	SECOND ANALYSIS DATE	
Z 0.00 R 17.14 C 5.76 CONC. 5.76		Z R C CONC.	
R 17.14 Z 0.00 C 5.74 CONC. 5.74		R Z C CONC.	
Z 0.00 C 5.74 R 17.14 CONC. 5.74		Z C R CONC.	
U/M %	MEAN TEST ASSAY 5.74	U/M %	MEAN TEST ASSAY

VALUES NOT VALID BELOW 150 PSIG; BALANCE:NITROGEN  
UNCERTAINTIES:NO±0.3PPM, CO2±0.05%

THIS CYLINDER NO. SA13188  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 05/05/03  
EXPIRATION DATE 05/05/05 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 23.6PPM  
CARBON DIOXIDE 5.74%  
NITROGEN BALANCE  
NOX (FOR REFERENCE ONLY) 23.6PPM

ANALYZED BY

JOE HORWATH

CERTIFIED BY & REVIEWED BY-JM  
DATE-5/7/03





Praxair Distribution, Inc.  
145 Shimersville Road  
Bethlehem, PA 18015

Tel: (610) 691-2474  
Fax: (610) 758-9103

*Installed  
2/8/05  
WBR*

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 769134-1

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 98.1PPM GMIS VS	1684B	FF17256	97.5PPM
11.11% CARBON DIOXIDE GMIS VS	2745	CAL-010433	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	NITRIC OXIDE 98.1PPM GMIS VS	ANALYZER MAKE-MODEL-S/N	TECO MODEL 42C 42CH-57352-312
ANALYTICAL PRINCIPLE	Chemiluminescence	LAST CALIBRATION DATE	12/31/04
FIRST ANALYSIS DATE	01/06/05	SECOND ANALYSIS DATE	01/13/05
Z 0.0 R 98.1 C 54.6 CONC. 54.7		Z 0.0 R 97.1 C 53.8 CONC. 54.4	
R 98.0 Z 0.0 C 54.9 CONC. 55.0		R 97.2 Z 0.0 C 53.7 CONC. 54.3	
Z 0.0 C 54.2 R 97.8 CONC. 54.3		Z 0.0 C 53.5 R 97.0 CONC. 54.1	
U/M PPM	MEAN TEST ASSAY 54.6	U/M PPM	MEAN TEST ASSAY 54.2
2. COMPONENT	11.11% CARBON DIOXIDE GMIS VS	ANALYZER MAKE-MODEL-S/N	HORIBA VIA 510, S/N 576979023
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	12/31/04
FIRST ANALYSIS DATE	01/06/05	SECOND ANALYSIS DATE	
Z 0.00 R 11.11 C 10.95 CONC. 10.94		Z R C CONC.	
R 11.11 Z 0.00 C 10.96 CONC. 10.95		R Z C CONC.	
Z 0.00 C 10.97 R 11.13 CONC. 10.96		Z C R CONC.	
U/M %	MEAN TEST ASSAY 10.95	U/M %	MEAN TEST ASSAY

VALUES NOT VALID BELOW 150 PSIG; BALANCE:NITROGEN  
UNCERTAINTIES:NO<sub>2</sub>±0.6PPM,CO<sub>2</sub>±0.07%

THIS CYLINDER NO. SA17182  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 01/13/05  
EXPIRATION DATE 01/13/07 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 54.4PPM  
CARBON DIOXIDE 10.95%  
NITROGEN BALANCE  
NOX (FOR REFERENCE ONLY) 54.4PPM

ANALYZED BY

JOSH FINCKE

CERTIFIED BY

*JA 1/13/05*

JENNIFER M. GRANHOLM  
GOVERNORSTATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
LANSINGSTEVEN E. CHESTER  
DIRECTOR

August 30, 2005

CERTIFIED MAILMr. Wade Richards  
Cargill Salt  
916 South Riverside  
St. Clair, Michigan 48079-5335

SRN: A6240

Dear Mr. Richards:

SUBJECT: Second Quarter 2005 Excess Emission Report for the Continuous Emission  
Monitor Systems (CEMS) of Boiler 10

## LETTER OF VIOLATION

The Renewable Operating Permit (ROP) Number 199700084 requires Cargill Salt to monitor the nitrogen oxides (NO<sub>x</sub>) emissions from Boiler 10. This unit is also subject to Title 40 of the Code of Federal Regulations (CFR), Part 60, Subparts A and Db.

The second quarter excess emission report indicated that there was an extended period of monitor downtime, fourteen days from May 25-June 7. This accounted for more than nineteen percent of the operating time for the quarter.

Specifically, monitoring requirement violations of 40 CFR, Part 60, Subparts A and Db, and your ROP, include, but are not limited to, the following:

Section Violated	Comments
§60.48b (1) ROP Table E-01.3, Sec III, A (1)	Failure to continuously monitor.
§60.48b (f)	Failure to monitor 75% of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

You should immediately initiate the necessary actions to correct the cited violations. Additionally, please submit a report of your program of compliance by September 21, 2005, which coincides with 21 calendar days from the date of this letter. As a minimum this report should contain the following:

1. Explanation of the causes of the violations cited.
2. Remedial action taken.
3. Steps being taken to prevent recurrence of the violations.
4. If the violations are not resolved by the date of your response, describe what procedures you will implement or other actions you will take and by what dates these actions will take place.

Mr. Wade Richards

2

August 31, 2005

Notwithstanding your response to the preceding citations, the Air Quality Division (AQD) may initiate further enforcement action to address the violations of the state and federal Air Acts, rules, and regulations.

If you have any questions regarding these violations or the actions necessary to bring your facility into compliance, please contact me.

Sincerely,



Tom Gasloli  
Technical Programs Unit  
Field Operations Section  
Air Quality Division  
517-335-4861

TG:MSL

cc: Mr. Gerald Avery, AQD  
Ms. Teresa Seidel, AQD  
Mr. Thomas Hess, AQD  
Mr. James Voss, AQD

RECEIVED

SEP 19 2005

AIR QUALITY DIV.



September 8, 2005

Mr. Tom Gasloli  
Technical Programs Unit-AQD  
P.O. Box 30260  
Lansing, Michigan 48909-7760

RE: NOV for CEM Calibration Violation -Title V ROP Permit No. 199700084

Dear Mr. Tom Gasloli:

This letter is in response to the Michigan Department of Environmental Quality's (MDEQ) Letter of Violation dated August 30, 2005, in which the Agency cites a violation of our Renewable Operating Permit (ROP) sections 60.48b(1) and 60.48b(f). This LOV resulted because of an extended period where Continuous Emission Monitoring equipment drifted outside calibration tolerances.

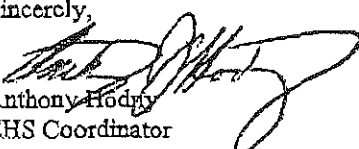
On June 7, 2005, Cargill reported a Continuous Emission Monitoring (CEM) instrument out of calibration. This was reported to James Voss on June 7, 2005 at 11:35am via voicemail message. EUBOILER10 (Boiler #10) CEM instrumentation drifted outside the instantaneous maximum of +/- 10% tolerance for NOx and CO on May 24 through June 7, 2005 [Appendix F 4.3.1 to Part 60]. Cargill would like to remind the AQD the CEM instrument is only used for continuous monitoring of gases and does not change the performance of Boiler #10 when it is out of calibration.

On May 23, Cargill had an instrumentation servicing company on site to service the CEM instrumentation for Boiler #10. During servicing the calibration gas bottle valve was closed. After servicing was completed, the calibration gas was not placed into operation. The lack of calibration gas caused 14 days of NOx and CO readings to deviate over 10% from the standard. False calibration values caused the logging of incorrect values for NOx and CO for 14 days. Immediately after the problem was noticed the CEM instrument was properly calibrated.

Plans are in place to ensure that all CEM issues are addressed right away. When the problem was discovered in June, Cargill immediately initiated an investigation to develop corrective actions. The Powerhouse operators have system alarms installed to disable the ability to neglect or acknowledge an alarm until the problem has been identified and solved. We have also added our CEM gas bottles onto a weekly condition-monitoring checklist. The tank pressure supply gas pressures will be monitored to be within operating range.

Cargill appreciates MDEQ allowing us an opportunity to respond. If you have any additional questions, please do not hesitate to contact me.

Sincerely,



Anthony Hodny  
EHS Coordinator

cc. Don Chutas  
Wade Richards

Tony.Hodny@cargill.com  
Office 810-326-2763  
Fax 810-329-6560

916 S. Riverside Ave.  
St. Clair, MI 48079-5335

Tel 810-326-2700



**RECEIVED**

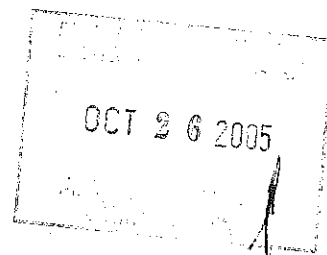
MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5

CJE  
Orange  
AL240

October 25, 2005

Ms. Teresa Seidel  
Air Quality Division  
Michigan Department of Environmental Quality  
27700 Donald Court  
Warren, MI 48092-2793



Re: Boiler No. 10 Emissions Report for the 3<sup>rd</sup> quarter of 2005

Dear Ms. Seidel:

This Quarterly Emissions Report has been requested from by the MDEQ in addition to the semiannual reporting requirements from the State of Michigan Renewable Operating Permit No. 199700084 Table E-01.3 EGBOILER10. Boiler No. 10 was operated using Natural Gas only during the entire reporting period. No excess emissions occurred during the reporting period of the third quarter of 2005. The boiler operated for 2208 hours for the third quarter of 2005.

The average NO<sub>x</sub> and CO<sub>2</sub> emission rates (lb/MM Btu heat input) and the 30-day average NO<sub>x</sub> emission rates (lb/MM Btu heat input) are summarized in Attachment A.

There was zero operating days when the 30-day average NO<sub>x</sub> emission rate exceeded the limit under 60.44b.

There was no emission data excluded from the calculations of average emission rates.

"F" factor is 1,040 dscf/MMBtu.

The pollutant concentrations did not exceed full span of the CEMS during the third quarter of the year.

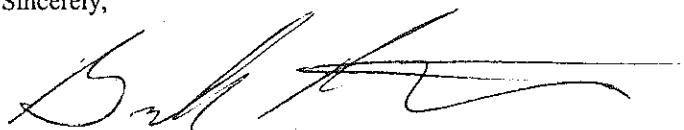
No modifications were made to the CEM that could affect the ability of the CEMS to comply with PS 2 or 3.

Attachment B contains the daily CEMS drift test.

Attachment C contains the NO<sub>x</sub> / CO<sub>2</sub> Span gas Certificate of Analysis.

If you have any questions please call me at 810-326-2821.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brandon Pretzsch', with a long horizontal stroke extending to the right.

Brandon Pretzsch  
Powerhouse Supervisor

cc: EHS File  
Don Chutas  
Tony Hodny

Attachments

Boiler No. 10 NO<sub>x</sub> Daily Averages, Emission Data, 30-Day Average NO<sub>x</sub>  
Boiler No. 10 Daily Calibration (zero / span)  
Certificate of Analysis / EPA Protocol Gas

**Attachment A -3rd Quarter  
Boiler 10 Emissions Data 30-day average NOx**

<b>Date</b>	<b>NOx Parts per Million</b>	<b>NOx Pounds per Mbtu</b>	<b>NOx Pounds per hour</b>	<b>CO2</b>	<b>30-Day Average</b>	<b>Comments</b>
09/30/05	44.78	0.079	0.005	7.05	0.069	
09/29/05	44.76	0.080	0.005	6.93	0.069	
09/28/05	41.97	0.073	0.004	7.11	0.068	
09/27/05	43.01	0.076	0.005	7.02	0.068	
09/26/05	39.01	0.068	0.005	7.10	0.067	
09/25/05	36.71	0.064	0.004	7.17	0.067	
09/24/05	42.56	0.073	0.005	7.22	0.067	
09/23/05	40.87	0.070	0.005	7.21	0.067	
09/22/05	39.09	0.068	0.003	7.14	0.067	
09/21/05	42.91	0.072	0.002	7.40	0.067	
09/21/05	42.91	0.072	0.005	7.40	0.067	
09/20/05	41.42	0.070	0.005	7.34	0.067	
09/19/05	41.52	0.070	0.005	7.37	0.066	
09/18/05	40.10	0.069	0.005	7.26	0.066	
09/17/05	39.67	0.068	0.005	7.26	0.065	
09/16/05	43.68	0.074	0.005	7.35	0.065	
09/15/05	41.49	0.070	0.005	7.36	0.064	
09/14/05	36.54	0.062	0.005	7.31	0.064	
09/13/05	36.12	0.061	0.004	7.32	0.064	
09/12/05	39.62	0.066	0.005	7.51	0.064	
09/11/05	38.44	0.065	0.005	7.39	0.064	
09/10/05	37.89	0.064	0.005	7.32	0.063	
09/09/05	42.16	0.070	0.006	7.46	0.063	
09/08/05	41.29	0.068	0.006	7.52	0.063	
09/07/05	41.99	0.068	0.006	7.59	0.062	
09/06/05	41.42	0.068	0.004	7.59	0.062	
09/05/05	39.78	0.067	0.004	7.40	0.062	
09/04/05	40.20	0.068	0.005	7.34	0.062	
09/03/05	41.78	0.070	0.005	7.39	0.061	
09/02/05	41.02	0.071	0.005	7.19	0.061	
09/01/05	38.70	0.067	0.004	7.07	0.060	
08/31/05	26.17	0.050	0.004	6.53	0.060	
08/30/05	29.43	0.059	0.004	6.66	0.060	
08/29/05	37.03	0.066	0.004	6.98	0.060	
08/28/05	36.63	0.065	0.005	6.92	0.060	
08/27/05	36.34	0.064	0.005	6.97	0.060	
08/26/05	37.21	0.065	0.004	7.02	0.061	
08/25/05	39.40	0.068	0.004	7.21	0.061	
08/24/05	37.98	0.069	0.005	6.84	0.060	
08/23/05	41.44	0.071	0.005	7.24	0.060	
08/22/05	37.22	0.063	0.004	7.11	0.059	
08/21/05	34.47	0.059	0.004	7.19	0.059	
08/20/05	32.00	0.056	0.004	7.12	0.059	
08/19/05	30.96	0.055	0.004	6.83	0.059	
08/18/05	34.78	0.060	0.003	7.21	0.060	
08/17/05	31.31	0.057	0.003	6.81	0.060	
08/16/05	32.96	0.056	0.004	7.21	0.060	
08/15/05	35.73	0.061	0.004	7.28	0.060	
08/14/05	33.34	0.058	0.004	7.06	0.060	
08/13/05	32.95	0.058	0.004	7.08	0.060	

**Attachment B - 1st Quarter  
Boiler 10 NOx Daily Calibrations**

<b>Date</b>	<b>NOx Parts per Million</b>		<b>CO2</b>	
	<b>Zero</b>	<b>Span</b>	<b>Zero</b>	<b>Span</b>
7/1/2005	0.50	51.02	0.10	10.85
7/2/2005	0.52	51.38	0.12	11.10
7/3/2005	0.53	51.51	0.12	11.16
7/4/2005	0.44	51.63	0.08	11.07
7/5/2005	0.48	51.44	0.10	11.04
7/6/2005	0.48	51.67	0.10	11.13
7/7/2005	0.56	51.67	0.13	11.26
7/8/2005	0.49	51.71	0.12	11.20
7/9/2005	0.49	51.84	0.12	11.23
7/10/2005	0.43	52.02	0.09	11.23
7/11/2005	0.41	51.99	0.08	11.20
7/12/2005	0.49	51.79	0.10	11.19
7/13/2005	0.49	51.54	0.10	11.08
7/14/2005	0.49	51.50	0.11	11.07
7/15/2005	0.49	51.50	0.10	11.08
7/16/2005	0.49	51.44	0.12	11.11
7/17/2005	0.50	51.37	0.13	11.13
7/18/2005	0.49	51.36	0.10	11.06
7/19/2005	0.50	51.30	0.12	11.08
7/20/2005	0.49	51.45	0.11	11.17
7/21/2005	0.46	51.38	0.08	11.06
7/22/2005	0.49	51.56	0.10	11.13
7/23/2005	0.48	51.70	0.10	11.22
7/24/2005	0.48	51.40	0.10	11.13
7/25/2005	0.49	51.26	0.13	11.08
7/26/2005	0.52	50.90	0.10	10.96
7/27/2005	0.55	50.97	0.09	11.00
7/28/2005	0.62	51.24	0.12	11.26
7/29/2005	0.58	51.31	0.11	11.23
7/30/2005	0.61	51.54	0.14	11.38
7/31/2005	0.62	51.33	0.15	11.37
8/1/2005	0.50	51.27	0.11	11.20
8/2/2005	0.58	51.20	0.11	11.23
8/3/2005	0.56	51.14	0.10	11.18
8/4/2005	0.58	50.74	0.09	11.09
8/5/2005	0.49	51.16	0.10	11.20
8/6/2005	0.51	51.30	0.13	11.31
8/7/2005	0.49	51.11	0.12	11.23
8/8/2005	0.51	50.93	0.10	11.24
8/9/2005	0.56	50.63	0.11	11.19
8/10/2005	0.55	50.40	0.13	11.12
8/11/2005	0.56	50.32	0.09	11.13
8/12/2005	0.51	49.95	0.11	11.09
8/13/2005	0.55	49.68	0.11	11.09
8/14/2005	0.48	49.64	0.09	11.05
8/15/2005	0.58	49.51	0.14	11.28
8/16/2005	0.53	49.46	0.26	11.38



# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

## Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx  
Diluent: O2

Reporting period: 3rd Quarter of 2005

Company: Cargill Salt

Unit Description: Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmbtu 30 day aver Total Source Operation Time 2,208 hours

Monitor Manufacturer, Model No., & Serial No.: Thermo Env, # 42H Cheniluminescence, Serial #

### Emission Data Summary

1 Duration of Excess Emissions (EE) in reporting period due to (minutes):

a.	Startup/Shutdown	<u>0</u>
b.	Soot Blowing	<u>0</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>0</u>
e.	Other Known Causes	<u>0</u>
f.	Unknown Causes	<u>0</u>

2 Total Durations of EE's

3 Total Duration of EE's/Total Source Operation Time X 100 0 %

### CEM System Summary

1 CEM system downtime in reporting period due to (minutes):

a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>0</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>

2 Total CEM System Downtime 0

3 Total CEM System Downtime/Total Source Operation Time X 100 0 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: \_\_\_\_\_

Date: 10/24/05

**PRAXAIR**

*First Quarterly Test 9/20/05 By Tom Barr*

Praxair Distribution, Inc.  
145 Shimmersville Road  
Bethlehem, PA 18015

Tel: (610) 691-2474  
Fax: (610) 758-9103

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 983840-01

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
99.4 PPM NITRIC OXIDE GMIS VS	1684b	CAL013591	97.8 PPM
6.96% CARBON DIOXIDE GMIS VS	2745	CAL-010433	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT 99.4 PPM NITRIC OXIDE GMIS ANALYZER MAKE-MODEL-S/N				TECO MODEL 42C 42CHL-55533-304			
ANALYTICAL PRINCIPLE		CHEMILUMINESCENCE		LAST CALIBRATION DATE		08/31/05	
FIRST ANALYSIS DATE		09/08/05		SECOND ANALYSIS DATE		09/15/05	
Z 0.0	R 99.4	C 24.8	CONC. 24.8	Z 0.0	R 99.4	C 25.0	CONC. 25.0
R 99.0	Z 0.0	C 24.8	CONC. 24.8	R 99.6	Z 0.0	C 25.0	CONC. 25.0
Z 0.0	C 24.9	R 99.4	CONC. 24.9	Z 0.0	C 25.0	R 99.6	CONC. 25.0
U/M PPM	MEAN TEST ASSAY		24.9	U/M PPM	MEAN TEST ASSAY		25.0
2. COMPONENT 6.96% CARBON DIOXIDE GMIS VS ANALYZER MAKE-MODEL-S/N				SIEMENS ULTRAMAT 5E SN: D2-412			
ANALYTICAL PRINCIPLE		NON-DISPERSIVE INFRARED		LAST CALIBRATION DATE		08/31/05	
FIRST ANALYSIS DATE		09/08/05		SECOND ANALYSIS DATE			
Z 0.00	R 6.97	C 5.51	CONC. 5.50	Z	R	C	CONC.
R 6.97	Z 0.00	C 5.51	CONC. 5.50	R	Z	C	CONC.
Z 0.00	C 5.50	R 6.97	CONC. 5.49	Z	C	R	CONC.
U/M %	MEAN TEST ASSAY		5.50	U/M %	MEAN TEST ASSAY		

VALUES NOT VALID BELOW 150 PSIG; BALANCE:NITROGEN

UNCERTAINTIES: NO<sub>2</sub>±0.3PPM; CO<sub>2</sub>±0.03%

THIS CYLINDER NO. CC121481  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 09/15/05  
EXPIRATION DATE 09/15/07 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 25.0PPM  
CARBON DIOXIDE 5.50%  
NITROGEN BALANCE  
NOX (FOR REFERENCE ONLY) 25.0PPM

ANALYZED BY

KELLY SCHOCH

CERTIFIED BY

*Aut* 9/21/05



Praxair Distribution, Inc.  
145 Shinersville Road  
Bethlehem, PA 18015

Tel: (610) 691-2474  
Fax: (610) 758-9103

*Installed  
2/8/05  
war*

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 769134-1

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 98.1PPM GMIS VS	1684B	FF17256	97.5PPM
11.11% CARBON DIOXIDE GMIS VS	2745	CAL-010433	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	NITRIC OXIDE 98.1PPM GMIS VS	ANALYZER MAKE-MODEL-S/N	TECO MODEL 42C 42CH-57352-312
ANALYTICAL PRINCIPLE	Chemiluminescence	LAST CALIBRATION DATE	12/31/04
FIRST ANALYSIS DATE	01/06/05	SECOND ANALYSIS DATE	01/13/05
Z 0.0 R 98.1 C 54.6 CONC. 54.7		Z 0.0 R 97.1 C 53.8 CONC. 54.4	
R 98.0 Z 0.0 C 54.9 CONC. 55.0		R 97.2 Z 0.0 C 53.7 CONC. 54.3	
Z 0.0 C 54.2 R 97.8 CONC. 54.3		Z 0.0 C 53.5 R 97.0 CONC. 54.1	
U/M PPM MEAN TEST ASSAY 54.6		U/M PPM MEAN TEST ASSAY 54.2	
2. COMPONENT	11.11% CARBON DIOXIDE GMIS VS	ANALYZER MAKE-MODEL-S/N	HORIBA VIA 510, S/N 576979023
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	12/31/04
FIRST ANALYSIS DATE	01/06/05	SECOND ANALYSIS DATE	
Z 0.00 R 11.11 C 10.95 CONC. 10.94		Z R C CONC.	
R 11.11 Z 0.00 C 10.96 CONC. 10.95		R Z C CONC.	
Z 0.00 C 10.97 R 11.13 CONC. 10.96		Z C R CONC.	
U/M % MEAN TEST ASSAY 10.95		U/M % MEAN TEST ASSAY	

VALUES NOT VALID BELOW 150 PSIG; BALANCE: NITROGEN

UNCERTAINTIES: NO $\pm$ 0.6PPM, CO $\pm$ 0.07%

THIS CYLINDER NO. SA17182  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY  $\pm 1$  % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 01/13/05  
EXPIRATION DATE 01/13/07 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 54.4PPM  
CARBON DIOXIDE 10.95%  
NITROGEN BALANCE  
NOx (FOR REFERENCE ONLY) 54.4PPM

ANALYZED BY

JOSH FINCKE

CERTIFIED BY

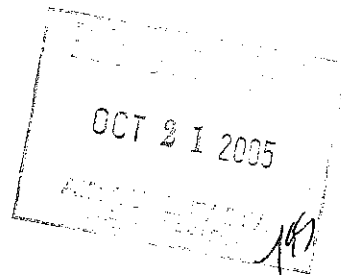
*JA 1/13/05*



**RECEIVED**

MAR 22 2006

AIR ENFORCEMENT BRANCH,  
U.S. EPA, REGION 5



CSE  
A6240  
Orange

September 20, 2005

Ms. Teresa Seidel  
Air Quality Division  
Michigan Department of Environmental Quality  
27700 Donald Court  
Warren, MI 48092-2793

Re: Boiler No. 5 Quarterly Excess Emissions Report (EER) for Opacity for the 3<sup>rd</sup> quarter 2005  
Boiler #10 hours of operation for 3<sup>rd</sup> quarter 2005

Dear Ms. Seidel:

#10 Boiler operated for 132480 minutes or 2208 hours for the 3<sup>rd</sup> quarter of 2005.

This EER is being submitted in accordance with the quarterly reporting requirements of 40 CFR 60.7(c) and (d). Attached is a summary utilizing MDEQ's report form based on the format required by 40 CFR 60.7(d).

During the 3<sup>rd</sup> quarter, Boiler No. 5 operated within the opacity emission 99.88% of the boiler operating time. To put this compliance rate in perspective, we take note of the fact that 40 CFR 60.7(d) only requires the submission of more than the summary report when the source is in compliance less than 99% of the time. Attached in Table 1 is a list of exceedences including time, duration, and reason for the exceedence.

Consistent with our consent agreement, a listing of time, duration, and cause of each six-minute average greater than 20% is attached in Table 2. Note that not all readings greater than 20% constitute an exceedence as defined by MDEQ Rule 301.

Cargill had no unscheduled shutdowns this quarter. Cargill Salt, St. Clair has identified three main causes for the six-minute opacity averages in exceedence of MDEQ Rule 301. See Table 1. They are listed below along with the corrective actions and preventative measures. The summary below also includes the percentage of the total exceedences caused by the particular problem.

Cause

Corrective Action Taken or Preventative Measure Adopted

Unknown Causes  
(45%) 12 Occurrences

Twelve of these occurrences occurred on 7/5/2005 from 9:00 pm to 12:05 am from unknown causes. Operators reported momentary opacity readings up to 61.4%. The boiler operators reported no changes in the system settings. Investigation determined no action was necessary and the problem occurred because of temporary fouling of the opacity monitor.

Process problems  
(26%) 7 Occurrences

Four of these occurrences were attributed from fine coal.

One of the occurrences was when the central stoker quit.

One of the occurrences was from a clinker on the east precipitator.

One of these occurrences was attributed to a clinker on the west stoker. The problem was fixed within the hour.

Soot blowing  
(22%) 6 Occurrences

There were six soot-blowing exceedences during the quarter.

Other known causes  
(7%) 2 Occurances

Two excursions were from an increased load from the air dryer coming on.

If you have any questions please call me at 810-326-2821.

Sincerely,



Brandon Pretzsch  
Powerhouse Supervisor

cc: Don Chutas  
Tony Hodny  
EHS File

Tom Gasloli,  
MDEQ, Air Quality Division  
PO Box 30260  
Lansing, MI 48909

Attachments

Michigan Department of Environmental Quality Air Quality Division Summary #5 Boiler  
Table 1 – Opacity Excursions  
Table 2 – 6 minute Opacity Readings > 20% (excluding opacity excursions listed in Table 1)

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: Opacity

Reporting period: Third quarter, 2005

Company: Cargill Salt

Unit Description: Boiler #5, 100,000 #/hour

Emission Limit: R336.1301 (1) Total Source Operation Time 132480 min

Monitor Manufacturer, Model No., & Serial No.: Durag DR 90, #403074

**Emission Data Summary**

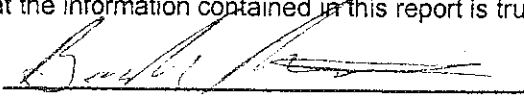
1	Duration of Excess Emissions (EE) in reporting period due to (minutes):	
a.	Startup/Shutdown	<u>0</u>
b.	Soot Blowing	<u>36</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>42</u>
e.	Other Known Causes	<u>12</u>
f.	Unknown Causes	<u>72</u>
2	Total Durations of EE's	<u>162</u>
3	Total Duration of EE's/Total Source Operation Time X 100	<u>0.12 %</u>

**CEM System Summary**

1	CEM system downtime in reporting period due to (minutes):	
a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>54</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>
2	Total CEM System Downtime	<u>54</u>
3	Total CEM System Downtime/Total Source Operation Time X 100	<u>0.04 %</u>

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: 

Date: 10/18/05

**Table 1 - OPACITY EXCURSIONS**

Number	Date	Time	Boiler 5 Opacity	Comment	Comment Detail
1	07/05/05	9:17 AM	27.6	Process problems	Central stoker quit
2	07/05/05	8:59 PM	50.3	Unknown Causes	Unknown causes
3	07/05/05	10:41 PM	61.4	Unknown Causes	Unknown causes
4	07/05/05	10:47 PM	50.6	Unknown Causes	Unknown causes
5	07/05/05	10:53 PM	32.0	Unknown Causes	Unknown causes
6	07/05/05	10:59 PM	27.2	Unknown Causes	Unknown causes
7	07/05/05	11:11 PM	22.2	Unknown Causes	Unknown causes
8	07/05/05	11:17 PM	23.8	Unknown Causes	Unknown causes
9	07/05/05	11:23 PM	24.4	Unknown Causes	Unknown causes
10	07/05/05	11:29 PM	25.5	Unknown Causes	Unknown causes
11	07/05/05	11:53 PM	28.8	Unknown Causes	Unknown causes
12	07/05/05	11:59 PM	40.6	Unknown Causes	Unknown causes
13	07/06/05	12:05 AM	21.6	Unknown Causes	Unknown causes
14	07/07/05	6:41 AM	23.2	Soot blowing	Soot blowing
15	07/14/05	6:47 AM	21.0	Soot blowing	Soot blowing
16	07/16/05	7:47 AM	21.1	Soot blowing	Soot blowing
17	07/21/05	6:47 AM	24.4	Soot blowing	Soot blowing
18	07/23/05	7:41 AM	23.4	Soot blowing	Soot blowing
19	07/25/05	6:29 AM	20.6	Soot blowing	Soot blowing
20	08/21/05	1:47 PM	21.7	Process problems	Bad coal - fines
21	09/06/05	4:53 PM	21.4	Other known causes	High load, air dryer on
22	09/06/05	4:59 PM	21.3	Other known causes	High load, air dryer on
23	09/09/05	9:05 AM	22.1	Process problems	Clinker east precipitator
24	09/14/05	3:41 PM	20.8	Process problems	Bad coal - fines
25	09/14/05	3:47 PM	20.9	Process problems	Bad coal - fines
26	09/14/05	3:53 PM	21.3	Process problems	Bad coal - fines
27	09/26/05	10:29 AM	32.2	Process problems	Clinker on West stoker

**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
07/01/05	6:53 AM	22	No	Within emission limits	Soot blowing
07/01/05	6:47 PM	21	No	Within emission limits	Soot blowing
07/02/05	5:47 AM	21	No	Within emission limits	Soot blowing
07/02/05	6:41 AM	24	No	Within emission limits	Soot blowing
07/02/05	7:41 AM	21	No	Within emission limits	Soot blowing
07/02/05	5:59 PM	22	No	Within emission limits	Soot blowing
07/02/05	7:53 PM	22	No	Within emission limits	Soot blowing
07/03/05	6:41 AM	23	No	Within emission limits	Soot blowing
07/03/05	8:35 AM	22	No	Within emission limits	Soot blowing
07/04/05	6:47 AM	23	No	Within emission limits	Soot blowing
07/04/05	5:53 PM	21	No	Within emission limits	Soot blowing
07/04/05	6:53 PM	22	No	Within emission limits	Soot blowing
07/05/05	5:47 AM	22	No	Within emission limits	Soot blowing
07/05/05	6:41 AM	22	No	Within emission limits	Soot blowing
07/05/05	6:53 PM	21	No	Within emission limits	Soot blowing
07/05/05	10:29 PM	26	No	Within emission limits	Unknown causes
07/06/05	5:53 PM	27	No	Within emission limits	Soot blowing
07/07/05	5:47 AM	22	No	Within emission limits	Soot blowing
07/07/05	6:53 PM	21	No	Within emission limits	Soot blowing
07/08/05	5:47 AM	21	No	Within emission limits	Soot blowing
07/08/05	6:47 AM	22	No	Within emission limits	Soot blowing
07/08/05	6:47 PM	22	No	Within emission limits	Soot blowing
07/09/05	6:41 AM	22	No	Within emission limits	Soot blowing
07/09/05	5:47 PM	21	No	Within emission limits	Soot blowing
07/09/05	6:47 PM	21	No	Within emission limits	Soot blowing
07/09/05	7:47 PM	21	No	Within emission limits	Soot blowing
07/10/05	5:47 AM	21	No	Within emission limits	Soot blowing
07/10/05	6:41 AM	22	No	Within emission limits	Soot blowing
07/10/05	7:47 AM	22	No	Within emission limits	Soot blowing
07/10/05	5:47 PM	21	No	Within emission limits	Soot blowing
07/10/05	6:47 PM	21	No	Within emission limits	Soot blowing
07/11/05	6:41 AM	23	No	Within emission limits	Soot blowing
07/11/05	7:47 AM	21	No	Within emission limits	Soot blowing
07/11/05	5:47 PM	21	No	Within emission limits	Soot blowing
07/11/05	6:47 PM	21	No	Within emission limits	Soot blowing
07/11/05	7:47 PM	21	No	Within emission limits	Soot blowing
07/12/05	6:47 AM	22	No	Within emission limits	Soot blowing
07/12/05	5:47 PM	22	No	Within emission limits	Soot blowing
07/12/05	8:53 PM	21	No	Within emission limits	Soot blowing
07/13/05	5:47 AM	21	No	Within emission limits	Soot blowing
07/13/05	6:47 AM	23	No	Within emission limits	Soot blowing
07/13/05	3:11 PM	21	No	Within emission limits	Bad coal - fines
07/14/05	5:53 AM	21	No	Within emission limits	Soot blowing
07/14/05	7:53 AM	24	No	Within emission limits	Soot blowing
07/15/05	5:53 AM	23	No	Within emission limits	Soot blowing
07/16/05	5:47 AM	21	No	Within emission limits	Soot blowing
07/16/05	6:53 AM	26	No	Within emission limits	Soot blowing



**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
07/17/05	6:47 AM	22	No	Within emission limits	Soot blowing
07/17/05	7:47 AM	22	No	Within emission limits	Soot blowing
07/17/05	6:47 PM	22	No	Within emission limits	Soot blowing
07/18/05	5:47 AM	24	No	Within emission limits	Soot blowing
07/18/05	5:47 PM	21	No	Within emission limits	Soot blowing
07/18/05	6:47 PM	22	No	Within emission limits	Soot blowing
07/19/05	6:47 AM	23	No	Within emission limits	Soot blowing
07/19/05	7:47 PM	21	No	Within emission limits	Soot blowing
07/20/05	6:47 AM	23	No	Within emission limits	Soot blowing
07/20/05	7:47 AM	22	No	Within emission limits	Soot blowing
07/21/05	5:53 AM	23	No	Within emission limits	Soot blowing
07/21/05	6:53 PM	21	No	Within emission limits	Soot blowing
07/23/05	5:47 AM	21	No	Within emission limits	Soot blowing
07/23/05	6:47 AM	24	No	Within emission limits	Soot blowing
07/24/05	5:47 AM	23	No	Within emission limits	Soot blowing
07/24/05	6:47 AM	22	No	Within emission limits	Soot blowing
07/25/05	5:47 AM	22	No	Within emission limits	Soot blowing
07/25/05	7:41 AM	22	No	Within emission limits	Soot blowing
07/25/05	8:47 AM	21	No	Within emission limits	Soot blowing
07/26/05	5:47 AM	21	No	Within emission limits	Soot blowing
07/26/05	6:47 AM	22	No	Within emission limits	Soot blowing
07/27/05	5:47 AM	23	No	Within emission limits	Soot blowing
07/27/05	6:47 AM	25	No	Within emission limits	Soot blowing
07/27/05	7:47 AM	22	No	Within emission limits	Soot blowing
07/28/05	6:47 AM	23	No	Within emission limits	Soot blowing
07/29/05	6:47 AM	22	No	Within emission limits	Soot blowing
07/29/05	12:17 PM	21	No	Within emission limits	Increase steam load-#10 steam feed pump on
07/30/05	5:47 AM	24	No	Within emission limits	Soot blowing
07/31/05	5:47 AM	22	No	Within emission limits	Soot blowing
07/31/05	7:47 AM	23	No	Within emission limits	Soot blowing
08/01/05	5:53 AM	21	No	Within emission limits	Soot blowing
08/01/05	7:53 PM	22	No	Within emission limits	Soot blowing
08/03/05	6:47 AM	22	No	Within emission limits	Soot blowing
08/03/05	5:47 PM	21	No	Within emission limits	Soot blowing
08/03/05	6:47 PM	22	No	Within emission limits	Soot blowing
08/04/05	6:41 AM	24	No	Within emission limits	Soot blowing
08/05/05	5:47 AM	21	No	Within emission limits	Soot blowing
08/05/05	6:47 AM	25	No	Within emission limits	Soot blowing
08/05/05	5:53 PM	21	No	Within emission limits	Soot blowing
08/05/05	6:53 PM	21	No	Within emission limits	Soot blowing
08/06/05	5:47 AM	21	No	Within emission limits	Soot blowing
08/06/05	6:53 AM	26	No	Within emission limits	Soot blowing
08/06/05	6:53 PM	21	No	Within emission limits	Soot blowing
08/07/05	6:47 AM	24	No	Within emission limits	Soot blowing
08/07/05	5:53 PM	21	No	Within emission limits	Soot blowing
08/08/05	6:47 AM	23	No	Within emission limits	Soot blowing
08/09/05	6:47 PM	21	No	Within emission limits	Soot blowing

**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
08/10/05	6:41 AM	21	No	Within emission limits	Soot blowing
08/10/05	5:47 PM	24	No	Within emission limits	Soot blowing
08/10/05	9:47 PM	22	No	Within emission limits	Soot blowing
08/11/05	7:41 AM	23	No	Within emission limits	Soot blowing
08/11/05	7:47 PM	21	No	Within emission limits	Soot blowing
08/11/05	9:47 PM	21	No	Within emission limits	Soot blowing
08/12/05	7:41 AM	21	No	Within emission limits	Soot blowing
08/12/05	9:47 AM	22	No	Within emission limits	Soot blowing
08/12/05	5:47 PM	23	No	Within emission limits	Soot blowing
08/12/05	7:41 PM	22	No	Within emission limits	Soot blowing
08/12/05	9:47 PM	22	No	Within emission limits	Soot blowing
08/13/05	7:47 AM	21	No	Within emission limits	Soot blowing
08/13/05	5:47 PM	23	No	Within emission limits	Soot blowing
08/13/05	7:47 PM	23	No	Within emission limits	Soot blowing
08/14/05	7:47 AM	21	No	Within emission limits	Soot blowing
08/15/05	5:47 AM	21	No	Within emission limits	Soot blowing
08/15/05	7:47 AM	23	No	Within emission limits	Soot blowing
08/15/05	9:47 AM	22	No	Within emission limits	Soot blowing
08/16/05	5:53 AM	25	No	Within emission limits	Soot blowing
08/16/05	8:47 AM	30	No	Within emission limits	Soot blowing
08/17/05	7:41 AM	21	No	Within emission limits	Soot blowing
08/18/05	5:47 AM	21	No	Within emission limits	Soot blowing
08/18/05	7:41 AM	21	No	Within emission limits	Soot blowing
08/19/05	6:47 PM	21	No	Within emission limits	Soot blowing
08/19/05	9:47 PM	21	No	Within emission limits	Soot blowing
08/20/05	5:47 PM	21	No	Within emission limits	Soot blowing
08/21/05	5:53 AM	22	No	Within emission limits	Soot blowing
08/21/05	9:47 AM	21	No	Within emission limits	Soot blowing
08/21/05	1:35 PM	21	No	Within emission limits	Bad coal - fines
08/22/05	10:17 PM	21	No	Within emission limits	Bad coal - fines
08/23/05	5:53 AM	21	No	Within emission limits	Soot blowing
08/23/05	7:29 AM	26	No	Within emission limits	Soot blowing
08/23/05	9:47 AM	21	No	Within emission limits	Soot blowing
08/24/05	7:41 AM	22	No	Within emission limits	Soot blowing
08/24/05	9:41 AM	23	No	Within emission limits	Soot blowing
08/24/05	8:41 PM	23	No	Within emission limits	Soot blowing
08/25/05	5:47 AM	26	No	Within emission limits	Soot blowing
08/26/05	7:35 PM	21	No	Within emission limits	Soot blowing
08/27/05	5:53 AM	21	No	Within emission limits	Soot blowing
08/27/05	9:29 AM	21	No	Within emission limits	Soot blowing
08/27/05	7:35 PM	22	No	Within emission limits	Soot blowing
08/27/05	8:47 PM	21	No	Within emission limits	Soot blowing
08/29/05	5:47 AM	21	No	Within emission limits	Soot blowing
08/29/05	7:35 AM	22	No	Within emission limits	Soot blowing
08/29/05	1:11 PM	24	No	Within emission limits	Co-fire went out
08/29/05	5:53 PM	21	No	Within emission limits	Soot blowing
08/30/05	5:53 AM	26	No	Within emission limits	Soot blowing

**Table 2 - Reportables - Non-Violations** (6 minute Opacity Readings > 20% excluding opacity excursions listed in other table)

Date	Time	Boiler 5 Opacity	Actual Excursion	Comment	Comment Detail
08/30/05	7:17 AM	26	No	Within emission limits	Soot blowing
09/04/05	7:35 PM	21	No	Within emission limits	Soot blowing
09/06/05	4:47 PM	21	No	Within emission limits	High load - air dryer on
09/07/05	6:41 AM	21	No	Within emission limits	Soot blowing
09/07/05	9:11 AM	21	No	Within emission limits	Soot blowing
09/08/05	3:29 AM	25	No	Within emission limits	East mech. Collector plugged
09/08/05	2:17 PM	21	No	Within emission limits	Bad coal - fines
09/09/05	8:53 AM	22	No	Within emission limits	Soot blowing
09/14/05	8:17 AM	23	No	Within emission limits	Soot blowing
09/14/05	3:35 PM	21	No	Within emission limits	Bad coal - fines
09/17/05	5:47 AM	22	No	Within emission limits	Soot blowing
09/21/05	5:55 AM	21	No	Within emission limits	Soot blowing
09/21/05	7:29 PM	21	No	Within emission limits	Soot blowing
09/22/05	8:53 AM	21	No	Within emission limits	Soot blowing
09/25/05	5:53 AM	21	No	Within emission limits	Soot blowing
09/25/05	7:17 AM	21	No	Within emission limits	Soot blowing
09/30/05	5:53 AM	22	No	Within emission limits	Soot blowing

**Table 3 - CEM System Summary**

Date	Time	Boiler 5 Opacity	Comment	Comment Detail
08/30/05	7:53 AM	39.8	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	7:58 AM	22.0	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	8:17 AM	21.2	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	8:35 AM	22.1	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	8:53 AM	58.2	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	8:58 AM	31.9	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	9:11 AM	26.1	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	9:17 AM	27.8	Quality assurance Calibrations (Excess)	DT - Quarterly audit
08/30/05	9:35 AM	22.1	Quality assurance Calibrations (Excess)	DT - Quarterly audit



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January 26, 2006

Ms. Teresa Seidel  
Air Quality Division  
Michigan Department of Environmental Quality  
27700 Donald Court  
Warren, MI 48092-2793

Re: Boiler No. 10 Semi-annual Emissions Report for the 2<sup>nd</sup> half of 2005

Dear Ms. Seidel:

This Quarterly Emissions Report has been requested by the MDEQ in addition to the semiannual reporting requirements from the State of Michigan Renewable Operating Permit No. 199700084 Table E-01.3 EGBOILER10. Boiler No. 10 was operated using Natural Gas only during the entire reporting period. No excess emissions occurred during the reporting period of the third quarter of 2005. The boiler operated for 2208 hours for the third quarter of 2005 and 2208 hours for the fourth quarter of 2005.

The average NO<sub>x</sub> and CO<sub>2</sub> emission rates (lb/MM Btu heat input) and the 30-day average NO<sub>x</sub> emission rates (lb/MM Btu heat input) are summarized in Attachment A.

There was zero operating days when the 30-day average NO<sub>x</sub> emission rate exceeded the limit under 60.44b.

There was no emission data excluded from the calculations of average emission rates.

"F" factor is 1,040 dscf / MMBtu.

The pollutant concentrations did not exceed full span of the CEMS during the third quarter of the year.

No modifications were made to the CEM that could affect the ability of the CEMS to comply with PS 2 or 3.

Attachment A contains the NO<sub>x</sub> daily emissions data.

Attachment B contains the daily CEMS drift test.

Attachment C contains the NO<sub>x</sub> / CO<sub>2</sub> Span gas Certificate of Analysis.

If you have any questions please call me at 810-326-2821.

Sincerely,



Brandon Pretzsch  
Powerhouse Supervisor

cc: EHS File  
Don Chutas  
Tony Hodny

Attachments

Boiler No. 10 NO<sub>x</sub> Daily Averages, Emission Data, 30-Day Average NO<sub>x</sub>  
Boiler No. 10 Daily Calibration (zero / span)  
Certificate of Analysis / EPA Protocol Gas

**Attachment A -3rd Quarter  
Boiler 10 Emissions Data 30-day average NOx**

Date	NOx Parts per Million	NOx Pounds per Mbtu	NOx Pounds per hour	CO2	30-Day Average	Comments
09/30/05	44.78	0.079	0.005	7.05	0.069	
09/29/05	44.76	0.080	0.005	6.93	0.069	
09/28/05	41.97	0.073	0.004	7.11	0.068	
09/27/05	43.01	0.076	0.005	7.02	0.068	
09/26/05	39.01	0.068	0.005	7.10	0.067	
09/25/05	36.71	0.064	0.004	7.17	0.067	
09/24/05	42.56	0.073	0.005	7.22	0.067	
09/23/05	40.87	0.070	0.005	7.21	0.067	
09/22/05	39.09	0.068	0.003	7.14	0.067	
09/21/05	42.91	0.072	0.002	7.40	0.067	
09/21/05	42.91	0.072	0.005	7.40	0.067	
09/20/05	41.42	0.070	0.005	7.34	0.067	
09/19/05	41.52	0.070	0.005	7.37	0.066	
09/18/05	40.10	0.069	0.005	7.26	0.066	
09/17/05	39.67	0.068	0.005	7.26	0.065	
09/16/05	43.68	0.074	0.005	7.35	0.065	
09/15/05	41.49	0.070	0.005	7.36	0.064	
09/14/05	36.54	0.062	0.005	7.31	0.064	
09/13/05	36.12	0.061	0.004	7.32	0.064	
09/12/05	39.62	0.066	0.005	7.51	0.064	
09/11/05	38.44	0.065	0.005	7.39	0.064	
09/10/05	37.89	0.064	0.005	7.32	0.063	
09/09/05	42.16	0.070	0.006	7.46	0.063	
09/08/05	41.29	0.068	0.006	7.52	0.063	
09/07/05	41.99	0.068	0.006	7.59	0.062	
09/06/05	41.42	0.068	0.004	7.59	0.062	
09/05/05	39.78	0.067	0.004	7.40	0.062	
09/04/05	40.20	0.068	0.005	7.34	0.062	
09/03/05	41.78	0.070	0.005	7.39	0.061	
09/02/05	41.02	0.071	0.005	7.19	0.061	
09/01/05	38.70	0.067	0.004	7.07	0.060	
08/31/05	26.17	0.050	0.004	6.53	0.060	
08/30/05	29.43	0.059	0.004	6.66	0.060	
08/29/05	37.03	0.066	0.004	6.98	0.060	
08/28/05	36.63	0.065	0.005	6.92	0.060	
08/27/05	36.34	0.064	0.005	6.97	0.060	
08/26/05	37.21	0.065	0.004	7.02	0.061	
08/25/05	39.40	0.068	0.004	7.21	0.061	
08/24/05	37.98	0.069	0.005	6.84	0.060	
08/23/05	41.44	0.071	0.005	7.24	0.060	
08/22/05	37.22	0.063	0.004	7.11	0.059	
08/21/05	34.47	0.059	0.004	7.19	0.059	
08/20/05	32.00	0.056	0.004	7.12	0.059	
08/19/05	30.96	0.055	0.004	6.83	0.059	
08/18/05	34.78	0.060	0.003	7.21	0.060	
08/17/05	31.31	0.057	0.003	6.81	0.060	
08/16/05	32.96	0.056	0.004	7.21	0.060	
08/15/05	35.73	0.061	0.004	7.28	0.060	
08/14/05	33.34	0.058	0.004	7.06	0.060	
08/13/05	32.95	0.058	0.004	7.08	0.060	

08/12/05	32.85	0.057	0.004	7.09	0.060	
08/11/05	35.04	0.060	0.003	7.17	0.060	
08/10/05	29.41	0.054	0.003	6.70	0.060	
08/09/05	31.66	0.056	0.004	7.06	0.060	
08/08/05	34.69	0.060	0.004	7.19	0.060	
08/07/05	35.23	0.060	0.004	7.22	0.061	
08/06/05	36.12	0.062	0.004	7.25	0.061	
08/05/05	34.43	0.060	0.003	7.12	0.061	
08/04/05	28.89	0.053	0.006	6.73	0.061	
08/03/05	32.65	0.057	0.004	7.08	0.061	
08/02/05	34.58	0.059	0.004	7.21	0.062	
08/01/05	33.45	0.058	0.004	7.16	0.062	
07/31/05	36.81	0.063	0.003	7.26	0.062	
07/30/05	39.40	0.066	0.003	7.38	0.062	
07/29/05	38.68	0.065	0.005	7.35	0.061	
07/28/05	41.00	0.069	0.005	7.39	0.061	
07/27/05	38.94	0.066	0.005	7.30	0.061	
07/26/05	33.84	0.059	0.005	7.10	0.061	
07/25/05	31.31	0.056	0.003	6.89	0.061	
07/24/05	32.48	0.057	0.004	7.03	0.061	
07/23/05	35.81	0.062	0.003	7.15	0.061	
07/22/05	37.86	0.064	0.005	7.35	0.061	
07/21/05	31.20	0.056	0.003	6.94	0.061	
07/20/05	32.66	0.058	0.003	6.98	0.061	
07/19/05	34.30	0.060	0.004	7.14	0.061	
07/18/05	33.40	0.058	0.004	7.16	0.061	
07/17/05	33.92	0.058	0.004	7.20	0.062	
07/16/05	34.41	0.059	0.005	7.25	0.062	
07/15/05	34.26	0.059	0.004	7.20	0.062	
07/14/05	32.75	0.057	0.004	7.07	0.062	
07/13/05	33.88	0.059	0.004	7.13	0.062	
07/12/05	35.68	0.061	0.004	7.25	0.062	
07/11/05	39.74	0.066	0.005	7.43	0.062	
07/10/05	39.62	0.066	0.005	7.40	0.062	
07/09/05	41.17	0.069	0.005	7.45	0.061	
07/08/05	40.17	0.067	0.005	7.43	0.061	
07/07/05	40.45	0.067	0.005	7.47	0.061	
07/06/05	35.00	0.062	0.003	6.96	0.061	
07/05/05	35.62	0.061	0.004	7.23	0.062	
07/04/05	33.47	0.059	0.003	7.05	0.062	
07/03/05	36.08	0.063	0.004	7.12	0.063	
07/02/05	38.63	0.066	0.004	7.22	0.064	
07/01/05	32.82	0.059	0.003	6.90	0.064	



**Attachment A - 4th Quarter  
Boiler 10 Emissions Data 30-day average NOx**

Date	NOx Parts per Million	NOx Pounds per Mbtu	NOx Pounds per hour	CO2	30-Day Average	Comments
12/31/2005	44.11	0.076	0.00634	7.16	0.079	
12/30/2005	44.85	0.076	0.00645	7.28	0.079	
12/29/2005	42.44	0.073	0.00587	7.17	0.079	
12/28/2005	40.88	0.072	0.00813	7.04	0.079	
12/27/2005	43.15	0.075	0.00843	7.16	0.079	
12/25/2005	42.34	0.074	0.00569	7.09	0.079	
12/24/2005	42.77	0.074	0.00582	7.22	0.079	
12/23/2005	44.14	0.076	0.00585	7.23	0.080	
12/22/2005	47.59	0.081	0.00620	7.32	0.080	
12/21/2005	47.74	0.080	0.00596	7.45	0.080	
12/20/2005	49.38	0.082	0.00629	7.45	0.080	
12/20/2005	49.38	0.082	0.00276	7.45	0.080	
12/19/2005	49.60	0.083	0.00605	7.41	0.080	
12/18/2005	48.20	0.080	0.00581	7.50	0.080	
12/17/2005	48.45	0.081	0.00614	7.44	0.080	
12/16/2005	46.43	0.080	0.00639	7.21	0.080	
12/15/2005	44.61	0.077	0.00590	7.23	0.080	
12/14/2005	42.73	0.074	0.00478	7.19	0.080	
12/13/2005	50.22	0.083	0.00653	7.56	0.080	
12/12/2005	50.42	0.084	0.00686	7.47	0.080	
12/11/2005	47.92	0.083	0.00668	7.18	0.080	
12/10/2005	51.98	0.089	0.00798	7.26	0.080	
12/9/2005	46.81	0.079	0.00639	7.32	0.080	
12/8/2005	50.96	0.083	0.00677	7.59	0.080	
12/7/2005	46.49	0.080	0.00342	7.21	0.080	
12/6/2005	41.37	0.077	0.00330	6.69	0.079	
12/5/2005	45.79	0.078	0.00590	7.30	0.079	
12/4/2005	44.55	0.075	0.00538	7.41	0.079	
12/3/2005	44.56	0.078	0.00481	7.12	0.079	
12/2/2005	48.04	0.083	0.00682	7.13	0.079	
12/1/2005	43.01	0.074	0.00613	7.16	0.079	
11/30/2005	42.48	0.074	0.00551	7.15	0.079	
11/29/2005	42.29	0.077	0.00613	6.91	0.079	
11/28/2005	41.46	0.073	0.00508	7.06	0.079	
11/27/2005	46.35	0.078	0.00614	7.40	0.079	
11/26/2005	48.29	0.081	0.00602	7.43	0.079	
11/25/2005	52.49	0.087	0.00748	7.47	0.079	
11/24/2005	50.82	0.089	0.00773	7.07	0.079	
11/23/2005	49.64	0.087	0.00770	7.07	0.079	
11/22/2005	48.19	0.083	0.00704	7.22	0.079	
11/21/2005	43.09	0.075	0.00549	7.13	0.079	
11/20/2005	44.49	0.076	0.00531	7.27	0.079	
11/19/2005	46.13	0.078	0.00586	7.32	0.080	
11/18/2005	50.65	0.085	0.00660	7.43	0.080	
11/17/2005	48.85	0.083	0.00625	7.35	0.080	
11/16/2005	44.79	0.078	0.00569	7.10	0.080	
11/15/2005	40.85	0.072	0.00486	7.01	0.080	
11/14/2005	47.02	0.079	0.00566	7.36	0.080	
11/13/2005	44.94	0.079	0.00562	7.10	0.080	
11/12/2005	47.91	0.082	0.00611	7.27	0.080	

11/11/2005	50.01	0.083	0.00322	7.46	0.080	
11/10/2005	49.38	0.084	0.00688	7.34	0.080	
11/10/2005	49.38	0.084	0.00323	7.34	0.079	
11/9/2005	42.19	0.075	0.00527	6.95	0.079	
11/8/2005	43.30	0.075	0.00484	7.20	0.079	
11/7/2005	42.41	0.074	0.00232	7.09	0.079	
11/6/2005	41.38	0.075	0.00250	6.86	0.079	
11/6/2005	41.38	0.075	0.00469	6.86	0.079	
11/5/2005	40.24	0.072	0.00449	6.97	0.079	
11/4/2005	42.76	0.075	0.00548	7.10	0.079	
11/3/2005	39.01	0.077	0.00342	6.30	0.079	
11/2/2005	41.95	0.081	0.00292	6.44	0.078	
11/1/2005	44.71	0.078	0.00485	7.11	0.077	
10/31/2005	44.04	0.076	0.00552	7.16	0.077	
10/30/2005	45.58	0.079	0.00489	7.17	0.076	
10/29/2005	45.88	0.079	0.00487	7.25	0.076	
10/28/2005	45.92	0.078	0.00527	7.27	0.076	
10/27/2005	47.83	0.082	0.00549	7.28	0.076	
10/26/2005	51.99	0.088	0.00738	7.28	0.076	
10/25/2005	49.89	0.086	0.00655	7.22	0.075	
10/24/2005	51.17	0.088	0.00704	7.21	0.075	
10/23/2005	49.28	0.086	0.00618	7.09	0.074	
10/22/2005	50.54	0.088	0.00654	7.11	0.074	
10/21/2005	50.94	0.086	0.00694	7.32	0.073	
10/20/2005	50.86	0.087	0.00647	7.30	0.072	
10/19/2005	44.13	0.080	0.00555	6.84	0.072	
10/18/2005	39.27	0.076	0.00313	6.44	0.072	
10/17/2005	43.22	0.086	0.00320	6.27	0.071	
10/16/2005	42.40	0.077	0.00393	6.85	0.071	
10/15/2005	39.42	0.072	0.00397	6.79	0.071	
10/14/2005	38.12	0.068	0.00404	6.92	0.071	
10/13/2005	39.15	0.069	0.00411	7.00	0.071	
10/12/2005	42.28	0.073	0.00497	7.14	0.070	
10/11/2005	45.25	0.077	0.00582	7.28	0.070	
10/10/2005	45.89	0.079	0.00542	7.21	0.070	
10/9/2005	47.57	0.081	0.00555	7.30	0.069	
10/8/2005	47.64	0.083	0.00585	7.11	0.069	
10/7/2005	43.49	0.077	0.00526	7.05	0.068	
10/6/2005	35.27	0.062	0.00388	7.05	0.068	
10/5/2005	34.20	0.059	0.00384	7.17	0.068	
10/4/2005	32.28	0.055	0.00353	7.24	0.068	
10/3/2005	34.16	0.058	0.00424	7.33	0.069	
10/2/2005	36.57	0.063	0.00418	7.27	0.069	
10/1/2005	39.72	0.069	0.00464	7.13	0.069	

**Attachment B - 3rd Quarter  
Boiler 10 NOx Daily Calibrations**

<b>Date</b>	<b>NOx Parts per Million</b>		<b>CO2</b>	
	<b>Zero</b>	<b>Span</b>	<b>Zero</b>	<b>Span</b>
7/1/2005	32.82	0.059	0.00331	6.9
7/2/2005	38.63	0.066	0.00423	7.22
7/3/2005	36.08	0.063	0.00361	7.12
7/4/2005	33.47	0.059	0.00349	7.05
7/5/2005	35.62	0.061	0.00439	7.23
7/6/2005	35	0.062	0.00346	6.96
7/7/2005	40.45	0.067	0.00533	7.47
7/8/2005	40.17	0.067	0.00548	7.43
7/9/2005	41.17	0.069	0.00516	7.45
7/10/2005	39.62	0.066	0.0048	7.4
7/11/2005	39.74	0.066	0.00545	7.43
7/12/2005	35.68	0.061	0.0041	7.25
7/13/2005	33.88	0.059	0.00395	7.13
7/14/2005	32.75	0.057	0.00357	7.07
7/15/2005	34.26	0.059	0.00436	7.2
7/16/2005	34.41	0.059	0.00451	7.25
7/17/2005	33.92	0.058	0.00411	7.2
7/18/2005	33.4	0.058	0.00407	7.16
7/19/2005	34.3	0.06	0.00361	7.14
7/20/2005	32.66	0.058	0.0029	6.98
7/21/2005	31.2	0.056	0.00337	6.94
7/22/2005	37.86	0.064	0.00466	7.35
7/23/2005	35.81	0.062	0.00348	7.15
7/24/2005	32.48	0.057	0.0036	7.03
7/25/2005	31.31	0.056	0.00293	6.89
7/26/2005	33.84	0.059	0.00451	7.1
7/27/2005	38.94	0.066	0.00494	7.3
7/28/2005	41	0.069	0.00494	7.39
7/29/2005	38.68	0.065	0.00465	7.35
7/30/2005	39.4	0.066	0.00288	7.38
7/31/2005	36.81	0.063	0.00273	7.26
8/1/2005	33.45	0.058	0.00361	7.16
8/2/2005	34.58	0.059	0.00364	7.21
8/3/2005	32.65	0.057	0.00374	7.08
8/4/2005	28.89	0.053	0.00563	6.73
8/5/2005	34.43	0.06	0.00292	7.12
8/6/2005	36.12	0.062	0.0038	7.25
8/7/2005	35.23	0.06	0.00382	7.22
8/8/2005	34.69	0.06	0.00384	7.19
8/9/2005	31.66	0.056	0.00359	7.06
8/10/2005	29.41	0.054	0.0033	6.7
8/11/2005	35.04	0.06	0.00322	7.17
8/12/2005	32.85	0.057	0.00376	7.09
8/13/2005	32.95	0.058	0.00387	7.08
8/14/2005	33.34	0.058	0.0037	7.06
8/15/2005	35.73	0.061	0.00365	7.28
8/16/2005	32.96	0.056	0.00371	7.21

8/17/2005	31.31	0.057	0.00328	6.81
8/18/2005	34.78	0.06	0.00285	7.21
8/19/2005	30.96	0.055	0.00373	6.83
8/20/2005	32	0.056	0.00382	7.12
8/21/2005	34.47	0.059	0.00416	7.19
8/22/2005	37.22	0.063	0.00437	7.11
8/23/2005	41.44	0.071	0.00522	7.24
8/24/2005	37.98	0.069	0.00458	6.84
8/25/2005	39.4	0.068	0.00367	7.21
8/26/2005	37.21	0.065	0.00419	7.02
8/27/2005	36.34	0.064	0.00452	6.97
8/28/2005	36.63	0.065	0.00459	6.92
8/29/2005	37.03	0.066	0.00413	6.98
8/30/2005	29.43	0.059	0.00394	6.66
8/31/2005	26.17	0.05	0.00374	6.53
9/1/2005	38.7	0.067	0.00352	7.07
9/2/2005	41.02	0.071	0.00506	7.19
9/3/2005	41.78	0.07	0.00484	7.39
9/4/2005	40.2	0.068	0.00476	7.34
9/5/2005	39.78	0.067	0.00448	7.4
9/6/2005	41.42	0.068	0.0044	7.59
9/7/2005	41.99	0.068	0.00555	7.59
9/8/2005	41.29	0.068	0.00554	7.52
9/9/2005	42.16	0.07	0.00568	7.46
9/10/2005	37.89	0.064	0.00467	7.32
9/11/2005	38.44	0.065	0.00468	7.39
9/12/2005	39.62	0.066	0.00506	7.51
9/13/2005	36.12	0.061	0.00439	7.32
9/14/2005	36.54	0.062	0.00468	7.31
9/15/2005	41.49	0.07	0.00502	7.36
9/16/2005	43.68	0.074	0.00529	7.35
9/17/2005	39.67	0.068	0.00477	7.26
9/18/2005	40.1	0.069	0.00495	7.26
9/19/2005	41.52	0.07	0.00549	7.37
9/20/2005	41.42	0.07	0.00505	7.34
9/21/2005	42.91	0.072	0.00238	7.4
9/21/2005	42.91	0.072	0.00538	7.4
9/22/2005	39.09	0.068	0.00252	7.14
9/23/2005	40.87	0.07	0.00451	7.21
9/24/2005	42.56	0.073	0.00469	7.22
9/25/2005	36.71	0.064	0.00435	7.17
9/26/2005	39.01	0.068	0.00477	7.1
9/27/2005	43.01	0.076	0.00459	7.02
9/28/2005	41.97	0.073	0.0044	7.11
9/29/2005	44.76	0.08	0.00513	6.93
9/30/2005	44.78	0.079	0.00522	7.05

**Attachment B - 4th Quarter  
Boiler 10 NOx Daily Calibrations**

<b>Date</b>	<b>NOx Parts per Million</b>		<b>CO2</b>	
	<b>Zero</b>	<b>Span</b>	<b>Zero</b>	<b>Span</b>
10/1/2005	0.15	52.51	0.02	11.03
10/2/2005	0.11	50.97	0.04	11.20
10/3/2005	0.10	49.70	0.08	11.28
10/4/2005	0.10	49.51	0.12	11.32
10/5/2005	0.09	48.81	0.10	11.26
10/6/2005	0.11	52.75	0.09	11.14
10/7/2005	0.11	54.85	0.02	11.02
10/8/2005	0.11	56.95	0.01	10.95
10/9/2005	0.11	58.78	0.11	11.07
10/10/2005	0.12	56.87	0.10	11.09
10/11/2005	0.10	57.32	0.05	11.09
10/12/2005	0.11	56.93	0.06	11.12
10/13/2005	0.12	56.71	0.07	11.08
10/14/2005	0.11	56.40	0.02	11.02
10/15/2005	0.10	55.39	0.05	10.83
10/16/2005	0.10	57.56	0.01	10.86
10/17/2005	0.11	58.23	0.02	10.78
10/18/2005	0.10	56.98	0.05	10.69
10/19/2005	0.10	56.73	0.08	10.77
10/20/2005	0.11	59.88	0.00	10.98
10/21/2005	0.12	58.36	0.05	11.05
10/22/2005	0.11	57.81	0.01	10.84
10/23/2005	0.12	57.44	0.05	10.87
10/24/2005	0.13	57.65	0.05	10.93
10/25/2005	0.13	57.46	0.10	10.96
10/26/2005	0.13	57.86	0.02	10.95
10/27/2005	0.14	54.49	0.08	11.18
10/28/2005	0.14	56.04	0.10	11.27
10/29/2005	0.13	56.09	0.05	11.27
10/30/2005	0.14	56.42	0.01	11.17
10/31/2005	0.10	55.02	0.04	11.07
11/1/2005	0.10	53.93	0.04	10.89
11/2/2005	0.13	54.63	0.07	10.99
11/3/2005	0.10	54.24	0.02	10.80
11/4/2005	0.10	53.65	0.04	10.82
11/5/2005	0.12	52.91	0.02	10.90
11/6/2005	0.11	53.07	0.03	10.67
11/7/2005	0.11	55.25	0.07	11.09
11/8/2005	0.10	55.23	0.08	11.08
11/9/2005	0.10	54.12	0.02	10.85
11/10/2005	0.11	55.14	0.09	10.95
11/11/2005	0.11	55.14	0.10	11.17
11/12/2005	0.13	55.02	0.11	11.12
11/13/2005	0.11	55.08	0.01	10.85
11/14/2005	0.11	55.76	0.09	11.24
11/15/2005	0.12	53.18	0.07	11.02
11/16/2005	0.10	53.35	0.05	10.66

11/17/2005	0.11	55.10	0.01	11.06
11/18/2005	0.12	56.72	0.08	11.32
11/19/2005	0.12	54.70	0.17	11.25
11/20/2005	0.13	53.90	0.12	11.19
11/21/2005	0.12	53.77	0.16	11.05
11/22/2005	0.12	53.54	0.10	10.82
11/23/2005	0.11	55.74	0.08	10.84
11/24/2005	0.10	53.13	0.04	10.38
11/25/2005	0.10	56.91	0.02	10.94
11/26/2005	0.12	55.45	0.32	11.42
11/27/2005	0.11	54.77	0.13	11.19
11/28/2005	0.12	53.38	0.11	11.00
11/29/2005	0.10	53.05	0.06	10.71
11/30/2005	0.60	49.53	0.07	11.02
12/1/2005	0.24	49.02	0.03	11.10
12/2/2005	0.15	49.30	0.02	10.81
12/3/2005	0.16	54.34	0.24	11.30
12/4/2005	0.07	53.97	0.35	11.23
12/5/2005	0.15	50.87	0.14	11.25
12/6/2005	0.15	52.23	0.13	11.21
12/7/2005	0.14	52.60	0.05	11.27
12/8/2005	0.12	55.25	0.02	11.53
12/9/2005	0.12	51.62	0.15	11.09
12/10/2005	0.11	54.39	0.02	11.05
12/11/2005	0.09	53.54	0.13	10.73
12/12/2005	0.07	54.31	0.11	10.96
12/13/2005	0.07	54.25	0.15	11.30
12/14/2005	0.11	53.67	0.29	11.57
12/15/2005	0.09	52.32	0.13	11.13
12/16/2005	0.12	50.87	0.11	10.92
12/17/2005	0.12	53.06	0.08	11.28
12/18/2005	0.11	54.46	0.08	11.46
12/19/2005	0.10	54.45	0.07	11.35
12/20/2005	0.08	54.52	0.10	11.23
12/21/2005	0.10	53.81	0.19	11.32
12/22/2005	0.10	53.30	0.17	11.35
12/23/2005	0.12	51.15	0.20	11.12
12/24/2005	0.12	50.14	0.13	11.05
12/25/2005	0.11	50.01	0.08	10.89
12/26/2005	0.11	50.08	0.12	10.86
12/27/2005	0.12	49.99	0.20	11.19
12/28/2005	0.10	49.81	0.14	10.91
12/29/2005	0.12	48.54	0.13	10.76
12/30/2005	0.12	49.85	0.14	11.14
12/31/2005	0.09	50.89	0.07	10.84



Praxair Distribution, Inc.  
145 Shimersville Road  
Bethlehem, PA 18015

Tel: (610) 691-2474  
Fax: (610) 758-9103

*Installed  
2/8/05  
WBR*

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 769134-1

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
NITRIC OXIDE 98.1PPM GMIS VS	1684B	FF17256	97.5PPM
11.11% CARBON DIOXIDE GMIS VS	2745	CAL-010433	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT NITRIC OXIDE 98.1PPM GMIS VS ANALYZER MAKE-MODEL-S/N				TECO MODEL 42C 42CH-57352-312			
ANALYTICAL PRINCIPLE Chemiluminescence				LAST CALIBRATION DATE 12/31/04			
FIRST ANALYSIS DATE 01/06/05				SECOND ANALYSIS DATE 01/13/05			
Z 0.0	R 98.1	C 54.6	CONC. 54.7	Z 0.0	R 97.1	C 53.8	CONC. 54.4
R 98.0	Z 0.0	C 54.9	CONC. 55.0	R 97.2	Z 0.0	C 53.7	CONC. 54.3
Z 0.0	C 54.2	R 97.8	CONC. 54.3	Z 0.0	C 53.5	R 97.0	CONC. 54.1
U/M PPM		MEAN TEST ASSAY 54.6		U/M PPM		MEAN TEST ASSAY 54.2	
2. COMPONENT 11.11% CARBON DIOXIDE GMIS VS ANALYZER MAKE-MODEL-S/N				HORIBA VIA 510, S/N 576979023			
ANALYTICAL PRINCIPLE NON-DISPERSIVE INFRARED				LAST CALIBRATION DATE 12/31/04			
FIRST ANALYSIS DATE 01/06/05				SECOND ANALYSIS DATE			
Z 0.00	R 11.11	C 10.95	CONC. 10.94	Z	R	C	CONC.
R 11.11	Z 0.00	C 10.96	CONC. 10.95	R	Z	C	CONC.
Z 0.00	C 10.97	R 11.13	CONC. 10.96	Z	C	R	CONC.
U/M %		MEAN TEST ASSAY 10.95		U/M %		MEAN TEST ASSAY	

VALUES NOT VALID BELOW 150 PSIG; BALANCE:NITROGEN  
UNCERTAINTIES:NO±0.6PPM, CO2±0.07%

THIS CYLINDER NO. SA17182  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY ± 1 % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 01/13/05  
EXPIRATION DATE 01/13/07 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 54.4PPM  
CARBON DIOXIDE 10.95%  
NITROGEN BALANCE  
NOx (FOR REFERENCE ONLY) 54.4PPM

ANALYZED BY

JOSH FINCKE

CERTIFIED BY

*JA* 1/13/05



Praxair Distribution, Inc.  
145 Shimersville Road  
Bethlehem, PA 18015

Tel: (610) 691-2474  
Fax: (610) 758-9103

*Installed 11/6/06*  
*SN*

## CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

CUSTOMER PRAXAIR DETROIT

P.O NUMBER 983840-02

### REFERENCE STANDARD

COMPONENT	NIST SRM NO.	CYLINDER NO.	CONCENTRATION
146.9PPM NITRIC OXIDE GMIS VS	81686	SA19240	496.0PPM
13.96% CARBON DIOXIDE GMIS VS	2745	CAL-010433	15.69%

### ANALYZER READINGS

R=REFERENCE STANDARD

Z=ZERO GAS

C=GAS CANDIDATE

1. COMPONENT	146.9PPM NITRIC OXIDE GMIS VS	ANALYZER MAKE-MODEL-S/N	TECO MODEL 42C 42CHL-55533-304
ANALYTICAL PRINCIPLE	CHEMILUMINESCENCE	LAST CALIBRATION DATE	09/30/05
FIRST ANALYSIS DATE	10/14/05	SECOND ANALYSIS DATE	10/21/05
Z 0.0 R 146.8 C 52.8 CONC. 53.2		Z 0.0 R 146.8 C 54.2 CONC. 54.3	
R 145.7 Z 0.0 C 52.4 CONC. 52.8		R 146.4 Z 0.0 C 52.2 CONC. 52.3	
Z 0.0 C 52.7 R 145.0 CONC. 53.1		Z 0.0 C 52.6 R 146.4 CONC. 52.7	
U/M PPM MEAN TEST ASSAY 53.0		U/M PPM MEAN TEST ASSAY 53.1	
2. COMPONENT	13.96% CARBON DIOXIDE GMIS VS	ANALYZER MAKE-MODEL-S/N	SIEMENS ULTRAMAT 5E SN: D2-412
ANALYTICAL PRINCIPLE	NON-DISPERSIVE INFRARED	LAST CALIBRATION DATE	09/30/05
FIRST ANALYSIS DATE	10/14/05	SECOND ANALYSIS DATE	
Z 0.00 R 13.96 C 11.10 CONC. 11.10		Z R C CONC.	
R 13.96 Z 0.00 C 11.10 CONC. 11.10		R Z C CONC.	
Z 0.00 C 11.10 R 13.96 CONC. 11.10		Z C R CONC.	
U/M % MEAN TEST ASSAY 11.10		U/M % MEAN TEST ASSAY	

VALUES NOT VALID BELOW 150 PSIG; BALANCE:NITROGEN  
UNCERTAINTIES: NO $\pm$ 1.3PPM; CO $\pm$ 0.08%

THIS CYLINDER NO. SA9573  
HAS BEEN CERTIFIED ACCORDING TO SECTION 2.2  
OF TRACEABILITY PROTOCOL NO. EPA-600/R97/121  
PROCEDURE G1  
CERTIFIED ACCURACY  $\pm 1$  % NIST TRACEABLE  
CYLINDER PRESSURE 2000 PSIG  
CERTIFICATION DATE 10/21/05  
EXPIRATION DATE 10/21/07 TERM

CERTIFIED CONCENTRATION  
NITRIC OXIDE 53.1PPM  
CARBON DIOXIDE 11.10%  
NITROGEN BALANCE  
NOX (FOR REFERENCE ONLY) 53.1PPM

ANALYZED BY

KELLY SCHOCH

CERTIFIED BY

*AKB*

10 26 05



# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

## AIR QUALITY DIVISION

### Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx  
Diluent: O2

Reporting period: 3rd Quarter of 2005

Company: Cargill Salt Unit Description: Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmbtu 30 day aver Total Source Operation Time 2,208 hours

Monitor Manufacturer, Model No., & Serial No.: Thermo Env, # 42H Cheniluminescence, Serial #

#### Emission Data Summary

- 1 Duration of Excess Emissions (EE) in reporting period due to (minutes):
- |    |                            |          |
|----|----------------------------|----------|
| a. | Startup/Shutdown           | <u>0</u> |
| b. | Soot Blowing               | <u>0</u> |
| c. | Control Equipment Problems | <u>0</u> |
| d. | Process Problems           | <u>0</u> |
| e. | Other Known Causes         | <u>0</u> |
| f. | Unknown Causes             | <u>0</u> |
- 2 Total Durations of EE's
- 3 Total Duration of EE's/Total Source Operation Time X 100 0 %

#### CEM System Summary

- 1 CEM system downtime in reporting period due to (minutes):
- |    |   |          |
|----|---|----------|
| a. | Monitor Equipment Malfunctions          | <u>0</u> |
| b. | Non-Monitor Equipment Malfunctions      | <u>0</u> |
| c. | Quality Assurance Calibrations (Excess) | <u>0</u> |
| d. | Other Known Causes                      | <u>0</u> |
| e. | Unknown Causes                          | <u>0</u> |
- 2 Total CEM System Downtime 0
- 3 Total CEM System Downtime/Total Source Operation Time X 100 0 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: \_\_\_\_\_

Date: 11/26/06

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

Summary Report for Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant: NOx  
Diluent: O2

Reporting period: 4th Quarter of 2005

Company: Cargill Salt

Unit Description: Boiler #10, 150,000 #/hr

Emission Limit: 0.10 #/mmbtu 30 day aver Total Source Operation Time 2,208 hours

Monitor Manufacturer, Model No., & Serial No.: Thermo Env, # 42H Chemiluminescence, Serial #

**Emission Data Summary**

1 Duration of Excess Emissions (EE) in reporting period due to (minutes):

a.	Startup/Shutdown	<u>0</u>
b.	Soot Blowing	<u>0</u>
c.	Control Equipment Problems	<u>0</u>
d.	Process Problems	<u>0</u>
e.	Other Known Causes	<u>0</u>
f.	Unknown Causes	<u>0</u>

2 Total Durations of EE's

3 Total Duration of EE's/Total Source Operation Time X 100 0 %

**CEM System Summary**

1 CEM system downtime in reporting period due to (minutes):

a.	Monitor Equipment Malfunctions	<u>0</u>
b.	Non-Monitor Equipment Malfunctions	<u>0</u>
c.	Quality Assurance Calibrations (Excess)	<u>0</u>
d.	Other Known Causes	<u>0</u>
e.	Unknown Causes	<u>0</u>

2 Total CEM System Downtime 0

3 Total CEM System Downtime/Total Source Operation Time X 100 0 %

Comments: \_\_\_\_\_

I certify that the information contained in this report is true, accurate and complete.

Signature: 

Date: 1/26/06